

U.B.H.T.

Clinical Audit Report

1998/9

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1. Introduction from Chairman of Clinical Audit Committee

This year has seen a number of changes regarding clinical audit within the Trust which I touched on in last year's report. The major change which has occurred is that the previous two-tier committee system for audit has been abandoned and replaced by the new Clinical Audit Committee (CAC). This has created a team which not only includes all the audit convenors from the old Audit Convenors Committee but also the Clinical Audit Co-ordinator and representatives from the Trust Board, Primary Care, Avon Health and the Consumer Involvement and Information Unit (see Appendix B). The committee has also acquired a secretary.

The CAC now meets monthly and this has allowed the introduction of a rolling programme of audit presentations from each directorate as well as monitoring of audit within the Trust by means of scrutiny of three-monthly progress reports. This has already highlighted common problem areas as well as sharing ideas on good practice. Other achievements of the Committee have been creating better links with Primary Care and Avon Health, a greater appreciation at Trust Board level of IT requirements for audit, and the development of relationships with the Research & Development Support Unit and Consumer Involvement and Information Unit (formerly the Patient Survey Unit). Probably the most significant achievement has been to gain control of the budget for clinical audit.

I hope that the result of these changes will be a greater co-ordination of multi-professional, cross-directorate and interface audit. It should also make audit more focused and methodologically sound. Audit will increasingly take account of patients' views and the Committee is already involved in gearing up to the requirements of Clinical Governance and Clinical Risk Management. A major problem which I anticipate all Trusts having to address will be the provision of sufficient human and technical resources. We are looking forward to responding to the directives to come from the National Institute for Clinical Excellence (NICE) and working with the newly formed Primary Care Groups in developing audit with them. Control of the clinical audit budget will enable us to respond to changing contractual obligations, directives from NICE and unexpected problems which may suddenly arise. It will allow better support for directorates which have historically had no audit facilitator and a more equitable distribution of funds. It will also enhance training in audit methodology.

A major highlight of the year was the first 'Audit Oscars' which took place in March. An excellent attendance complemented the very high standard of the six audit presentations which were shortlisted. Dr Tim Cripps and his team from Cardiology with Primary care took the first prize and the second prize was won by Dr David Stansbie and James Osborne from the Directorate of Pathology. My congratulations go to them and to the other shortlisted candidates who demonstrated how good audit can be.

I would like to thank Roger Baird for his previous Chairmanship of the old CAC and for his encouragement during my first few months as Chairman. I would also like to thank all the members of the new Committee for their support and enthusiasm. Many thanks go to Naaz Nathoo for her secretarial help and to Chris Swonnell for all his help in the week to week management of audit matters. Finally, I would like to wish the Mental Health Directorate all the best as they leave UBHT to join the new Mental Health Trust.

Zen Rayter
Chairman of the Clinical Audit Committee

2. Clinical Audit Co-ordinator's Report

2.1 Preamble

Looking back through past annual audit reports from this and many other Trusts, the phrase "despite changes, challenges and difficulties" seems to occur with alarming regularity. This could create the impression of a discipline still fighting to secure its place at the heart of today's NHS. However, as modern healthcare audit clocks up its tenth birthday it must be said that *change* is what audit is about; furthermore that challenges are the things that keep us moving forward, whilst difficulties are merely the inevitable consequence of challenges and change.

In 1998/9 one significant change for the Clinical Audit Central Office was the move from Trust Headquarters to our present location in the Bristol Dental Hospital.

Zen Rayter has already alluded to recent structural changes in UBHT clinical audit as the Trust gears itself up to the challenge of Clinical Governance. 1999/2000 will also see the launch of the Trust's Clinical Effectiveness Strategy. Clinical Audit staff will have a significant part to play in promoting and encouraging Evidence-Based Healthcare.

As for the annual report itself, this year we have made a number of changes to enable us to meet the requirements of our contract with Avon Health. Firstly, we have provided a great deal of statistical information about the nature of the projects which have been undertaken during 1998/9. These reveal that the Trust is already well on the way to meeting new performance targets which are being introduced in 1999/2000. Individual directorate statistics should, however, be read with caution as 'n' numbers are often very small. Exemplar projects have been reported in some depth - the quality of these projects is testimony to how far clinical audit at UBHT has progressed in recent times - whilst attention has been drawn to the key findings of other audits which have been undertaken.

The main achievements for clinical audit in 1998/9, then, can be summarised as follows:

- High quality 'exemplar' audits
- Raised profile through the 'Audit Oscars'
- Control of the audit budget
- Growth of audit training and awareness
- On course to meet future performance targets

My thanks go to all audit support staff for their continued dedication and to members of the Clinical Audit Committee for their time and support in delivering an effective audit programme. Thanks in particular to Tracey Jones for preparing the statistical data contained in this report.

2.2 Achieving Effective Clinical Audit

2.2.1

Clinical Audit Strategy

In February 1999 the Trust's Clinical Audit Strategy was revised and updated to take account of the requirements of Clinical Governance and the increasing emphasis on Clinical Effectiveness. The full strategy is reproduced in *Appendix A* however the primary aims of the audit programme continue to be:

- To improve the quality of care received by patients by promoting best practice
- To improve health outcomes for patients

2.2.2

Financial information

In 1998/9, UBHT received approximately £347,000 from Avon Health Authority to fund clinical audit activity. The budget was allocated within UBHT as follows:

Central Office			£59,900	17.3%
IM&T (MDI)			£52,000	15.0%
Medicine	£34,600	14.7%		10.0%
Anaesthesia	£32,400	13.8%		9.3%
Mental Health	£22,000	9.4%		6.3%
Pathology	£17,800	7.6%		5.1%
Dentistry	£17,600	7.5%		5.1%
Children's Services	£17,600	7.5%		5.1%
Surgery	£16,500	7.0%		4.8%
Community	£15,400	6.6%		4.4%
Radiology	£15,000	6.4%		4.3%
O&G / ENT	£12,700	5.4%		3.7%
Oncology	£ 9,500	4.0%		2.7%
Cardiac Services	£ 8,600	3.7%		2.5%
Ophthalmology	£ 7,600	3.2%		2.2%
Specialty Services	£ 6,200	2.6%		1.8%
Occupational Health	£ 1,600	0.7%		0.4%
TOTAL 1	£235,100		£235,100	
TOTAL 2			£347,000	

In addition to the above, a further £39,700 was made available to the Central Office:

Carry-forward from 1997-8	£28,600
Transfer from Director of Nursing's training budget to contribute towards costs	£10,000
Income from National Cancer Services Waiting Times audit	£1,100
Total	£39,700

Total available resources for 1998/9 therefore amounted to £386,700.

In 1998/9, the budget was used to support clinical audit in the following ways:

Salaries of Audit 'Team' (central office, facilitators, clerk)	£189,135	48.9%
All other project costs (including miscellaneous project staff, ICNARC, MDI & MTOS)	£120,567	31.2%
Capital expenditure	£14,485	3.7%
Education, training and conferences	£17,547	4.5%
Miscellaneous (including general office expenses)	£3,827	1.0%
TOTAL EXPENDITURE	£345,561	89.4%
Total resources available	£386,700	
Total potential carry forward*	£41,139	10.6%

* In 1998/9 audit monies were once again allocated to directorates as part of the general contracting process. A significant proportion of the potential carry forward will therefore have been allocated to offsetting non-audit costs elsewhere in directorates. In 1999/2000 audit monies will be protected to ensure that the resources available to help the Trust meet the demands of clinical governance are maximised (see below)

In 1999/2000 there will be significant changes to the way that the budget is apportioned. The budget will no longer be divided on the basis of numbers of consultants in each directorate. The CAC has instead agreed to the principle that priority must be given to ensuring that all directorates receive sufficient funding to cover the cost of employing an audit facilitator for an

appropriate number of hours. The Committee has further agreed that any remaining audit funds should be held in a central pool and made available to support innovative projects in any directorate. Training and education money will also be held centrally by the Clinical Audit Office.

2.2.3

Organisational arrangements

As the Chairman has already alluded to in his introduction, in 1998/9 the Clinical Audit Convenors Group and the Clinical Audit Committee merged to form a new CAC which now reports to the Clinical Governance Committee (which in turn has replaced the old Patient Care Standards Committee). The CAC is supported by the Clinical Audit Central Office.

At directorate level, Clinical Audit continues to be organised by Audit Convenors (clinical lead representatives for audit) with the help of their respective Audit Facilitators (support staff). In 1998/9, UBHT welcomed the following personnel to the ranks of facilitators: Nicola Evans (Anaesthesia), Simon Bryant (Medicine) and Martin Norris (Paediatric Cardiac Services and Intensive Care). Sue Barron has added the role of Facilitator for Ophthalmology to her existing position in Homoeopathy. Toni van der Linde has taken on responsibility for audit projects in Pharmacy. At the same time we have said goodbye to Dave Perkins, Pete Woodward, Robin Kinsman & Christine Carter. Our thanks go to them for the contribution they have made to developing clinical audit at UBHT. In April 1999 we also say goodbye to Bill Jerrom & Terry Smith as the Mental Health Directorate becomes part of the new Avon & Western Wiltshire Mental Healthcare Trust. Elsewhere, Phil Quirk has succeeded Steve Brown as Convenor for Specialty Services and Ed Sheffield has replaced Morgan Moorghen as Convenor for Pathology. Zen Rayter has announced that he will be standing down as Convenor for Surgery to allow him to concentrate on his role as Chairman of the CAC, and will be succeeded by Paul Barham.

2.2.4

Clinical Audit Staff Development

Audit support staff at UBHT work within identified directorates. In 1998/9, the CAC and the Audit Facilitators Group have discussed ways in which audit staff might be given opportunities to broaden their experience. As a result of this it is hoped that in 1999/2000 staff will take the opportunity to facilitate occasional projects in directorates other than their own. Such arrangements can be particularly timely when directorates are awaiting the arrival of new audit appointees, or seeking to provide cover for prolonged absences.

In 1998/9 the Convenors & Facilitators received two days' intensive training from Healthcare Quality Quest. A follow-up is planned for 1999/2000.

Support staff have also been encouraged to take responsibility for organising annual reviews with their respective line managers and ensuring that any continuing professional development requirements are fed back to the Central Office.

2.2.5

Training & education (for non-audit staff)

In the past year, a series of audit education booklets have been produced by the Central Office. These address subjects such as choosing audit topics, developing audit standards and understanding the interface between audit and research. To date over **2000** booklets have been sent out to UBHT staff. The booklets have also drawn interest from groups outside the Trust.

To accompany the booklets, formal audit training is provided within most directorates whilst *Introduction to Clinical Audit* workshops are now held quarterly as part of UBHT's Staff Development programme.

2.2.6 Equipment

An LCD projector has been purchased to assist with training events and audit presentations. The projector can be booked through the Central Office and is available for use by all support staff and Convenors.

2.2.7 Audit prizes

As announced by Mr Rayter in last year's report, 1998/9 witnessed the inaugural UBHT 'Audit Oscars'. Funded by the Special Trustees, these prizes are designed to be an added incentive for staff to produce high quality audit projects. This year the first prize of £500 was won by a joint project between the Cardiology Department and Avon Primary Care Audit Group aimed at preventing secondary myocardial infarction. An abstract of the project can be read later in this report (see paragraph 3.4.2.1).

2.2.8 Clinical Audit Website

Clinical audit pages have recently been launched on the Trust website. Visitors to the site can catch up with the latest clinical audit news and find out more about how audit is organised in the Trust. It is hoped that both this report and the education booklets previously described will shortly be available on the website.

2.2.9 Clinical Effectiveness & Evidence Based Practice

The Clinical Audit Central Office has been actively involved in drafting the new UBHT Clinical Effectiveness Strategy. The precise structural relationship between Clinical Audit and Clinical Effectiveness will be agreed during 1999/2000. The creation of NICE means that audit projects will increasingly be based around against nationally accepted standards of best practice (see 2.2.11).

2.2.10 Relationship with R&D

In 1998/9 Jon Pollock was appointed as RDSU Co-ordinator. Arrangements have since been put in place to ensure that audit and research proposals are directed towards appropriate channels and that grey area projects ('is it audit, is it research?') do not simply slip through the net. It is hoped that the implementation of the Clinical Effectiveness Strategy will see Clinical Audit and the RDSU working increasingly closely in the year ahead.

2.2.11 Performance Targets

Following discussions with Avon Health Authority, a series of clinical audit performance targets will be introduced for the first time in 1999/2000. These targets are shown in the table below along with an indication of the Trust's current performance. The two columns for 1998/9 represent different ways of calculating our performance: the first column (1) includes only those projects which were part of the 1998/9 audit programme; the second (2) includes outstanding projects from 1997/8 which were rolled-over into 1998/9. In any case, the results are very similar and show that the Trust is already on course to meet next year's performance targets. Please note that 1998/9 performance figures relating to consumer involvement have been left blank as data collected during 1998/9 did not ask these specific questions. Related data is however shown in paragraph 3.2 and in each of the directorate summaries.

	1998/9 ¹	1998/9 ²	1999/2000 target	Ideal
Project source:				
Total number of audit projects	194	240	The CAC is committed to the principle of supporting smaller 'grassroots' audit projects in addition to larger nationally-driven projects. It is therefore felt to be inappropriate to set specific targets in this area.	
% new projects	71	57	65%	65%
% re-audits	15	13	25%	25%
% continuous monitoring	14	11	10%	10%
% projects rolled forward from 1997/8	N/A	19	N/A	N/A
% projects comparing current practice with standards or guidelines based on external evidence of clinical effectiveness	55	58	60%	75%
% projects measuring against or resulting in the development of standards or guidelines	81	79	80%	100%
% interface projects*	9	10	10%	Dependent on future developments with PCAG & PCGs
% proposals derived from consumer views	N/A	N/A	It is recognised that consumer involvement is becoming a priority for clinical audit, however in view of the fact that this is a developing area, specific targets have not been set for 1999/2000.	
% projects including consumer views	N/A	N/A		

Outcomes:

% projects resulting in changes in practice	61	58	60%	75%
% projects resulting in improved clinical outcomes	35	36	40%	75%

2.2.12 Auditing Audit

The Performance Targets shown above are part of a more robust and systematic approach to the organisation of clinical audit at UBHT. In 1998/9 we also made use of the HSMC's *Clinical Audit Assessment Framework* (Walshe & Spurgeon, 1997) and as a result identified a number of deficits in our audit programme. In particular these related to:

1. Reviewing the audit strategy
2. Budgetary arrangements
3. Training
4. Choosing audit topics
5. Involving patients/consumers in audit
6. Changing practice
7. Measuring the cost-effectiveness of audit

Concerns about strategy and the budget have been dealt with (see paragraphs 2.2.1 & 2.2.2). Training needs have been partially addressed (see paragraph 2.2.5), however the question of SHO audit training remains outstanding and will be formally discussed at the CAC early in 1999/2000. As part of its Business Plan for 1999/2000, the CAC will also address the issues of consumer involvement and the impact/cost-effectiveness of audit along with other subjects including the professional development needs of audit support staff and the need for protected audit time for all healthcare professionals.

The need for a systematic approach to topic selection and changing practice have recently been discussed at the CAC and the responsibility now rests with directorate audit committees to ensure that appropriate mechanisms are put in place. The choice of projects for directorate forward plans must in future take account of performance targets (see 2.2.11). An example of current good organisational practice can be found at St Michael's Hospital where an informal rule has been accepted that recommendations must be agreed following an audit presentation, and furthermore that the presenter must return to subsequent meetings to report on the implementation of those recommendations.

2.2.13

Note-pulling

Workload pressures mean that Medical Records are usually unable to pull notes for clinical audit projects, other than as a relatively expensive overtime exercise. In 1998/9 the Central Office has therefore employed a part-time audit clerk. Kate Gregson joined the Trust in February 1999 and currently works 20 hours a week. Requests for note-pulling should be sent to the Central Office (the project must first have been approved by the directorate audit convenor).

2.2.14

IM&T Support

Although much clinical audit still involves reviewing patients' casenotes, the future undoubtedly lies in the direction of the Electronic Patient Record. In 2002 the existing contract between UBHT and EDS comes to an end. This means that the current hospital information system including MDI will need to be replaced. Clinical Audit representatives are actively involved in the current competitive re-tendering process to ensure that the new system fulfils current audit requirements and has the flexibility to enable us to respond to new challenges as they emerge from NICE.

Chris Swonnell

Clinical Audit Co-ordinator

3. Project Reports for 1998/9

3.1 Contracted audits

3.1.1

Audit of paediatric and adult cardiac surgery

Separate reports will be published later in 1999.

3.1.2

Audit of colorectal cancer using Calman standards

The standards are currently only available in draft form. Progress will be made to facilitate data collection when the final standards are published.

3.1.3

Audit of breast cancer using Calman standards

In September 1997 the Avon & Somerset Cancer Services produced a set of standards for providers of breast care. These standards represent the minimum information requirements about patient management that must be available in accredited providers of breast cancer services. To date 18 standards have been audited. The results are reported under three separate projects – see paragraphs 3.4.16.2 & 3.4.16.3

3.1.4

Audit of in-labour perineal management

The pretext for this proposed audit was a clinical ('hoop') trial at Southmead and St Michael's Hospitals. The intention had been to develop new clinical standards if the trial demonstrated improved practice. In the event the results of the trial were neither better nor worse than existing practice and changes in practice were therefore not recommended. The proposal has subsequently been abandoned with the agreement of Avon Heath Authority.

3.1.5

RCP National Sentinel Audit of Stroke

See paragraph 3.4.7.5

3.1.6

Audit of referrals to and outcomes of diabetic retinopathy screening

See paragraph 3.4.12.3

3.1.7

At least 2 interface audits with Avon Ambulance Trust

Exploratory meetings have been held between AAT and the various acute Trusts in Avon. The only topic which has provoked universal interest is Acute Myocardial Infarction, however repeated difficulties in contacting AAT personnel have meant that this project has not progressed beyond the planning stage.

3.1.8

At least 2 interface audits with Avon Primary Care Audit Group (PCAG)

See paragraphs 3.4.2.1 & 3.4.16.4

3.2 Summary statistics

← Figures shown are in percentages →

Directorate	Total number of projects	New projects*	Re-audits*	Multi-Disciplinary*	Interface*	Standards - measuring or development*	Use of evidence in standards*	Patients Views*	Changes in practice~	Confirming improved outcomes#
Anaesthesia	18	50	17	47	7	73	47	27	56	25
Cardiothoracic Services	3	67	33	33	33	100	100	0	67	100
Children's Services	16	44	19	50	10	80	50	30	38	0
Community Services	18	61	0	45	9	64	18	9	43	0
Dental Services	16	69	19	13	13	93	53	40	58	100
Homoeopathy	6	67	0	17	0	50	17	17	100	0
Medicine	25	64	8	48	20	68	64	40	71	100
Mental Health	13	62	8	70	10	90	30	30	70	0
Obs, Gynae & ENT	18	44	6	30	0	90	70	0	50	50
Occupational Health	4	25	0	100	75	100	25	75	33	100
Oncology	8	63	0	80	0	80	80	0	43	0
Ophthalmology	8	63	25	25	0	38	25	0	0	0
Pathology	20	70	20	50	5	80	60	0	67	0
Radiology	22	41	41	82	14	82	41	23	76	73
Specialty Services	8	38	0	67	0	50	17	17	17	0
Surgery	32	94	0	31	3	97	97	19	80	0
Trust-wide	5	60	0	80	0	100	80	20	0	0
TOTAL	240	61%	13%	48%	10%	79%	58%	24%	58%	36%

* n = 240 (i.e. includes 1997/8 rollovers)

~ n = 150 (does not include 'current' projects)

n = 50 (includes completed re-audits and ongoing projects only - other projects may have led to improved patient outcomes, however this has not yet been confirmed by re-audit)

3.3 Trust-wide audits

SUMMARY

Number of 1997/8 roll-overs ◀◀	0
Number of new audits ■	3
Number of re-audits ●	0
Number of ongoing monitoring projects ▶▶	2
Total number of audits	5
Number of current (i.e. uncompleted) audits ▶	2
Multidisciplinary audits	4/5 (80%)
Interface audits	0/5 (0%)
Audits measuring against or resulting in development of standards or guidelines	5/5 (100%)
Audits involving standards or guidelines which have been/will be developed following consideration of available evidence about clinical effectiveness	4/5 (80%)
Audits which directly involved patients <i>(percentages above do <u>not</u> include 1997/8 roll-overs)</i>	1/5 (20%)
Audits resulting in changes in practice <i>(percentages above include 1997/8 roll-overs, but not 1998/9 'current' projects)</i>	0/3 (0%)
Re-audits confirming improved patient outcomes <i>(percentages above include completed re-audits and ongoing projects only)</i>	0/2 (0%)

3.3.1

Cancer Services Waiting Times National Audit ■

Chris Swonnell & Tracey Jones

In February 1998 Health Service Circular (HSC 1998/014) "Cancer Waiting Times Audit" was published. This alerted Trusts to the intention to conduct this national audit in order to establish the current waiting times for specific events during the care of patients who have or were suspected of having cancer. The White Paper *The New NHS* promises that everyone with suspected cancer will be able to see a specialist within two weeks of their GP deciding that they need to be seen urgently and requesting an appointment. This has been guaranteed for everyone with suspected breast cancer by April 1999 and for all other cases of suspected cancer by the year 2000. In addition, Ministers are currently considering whether maximum waiting times for referral, diagnosis and treatment of patients with cancer can be agreed (any agreement will be set within the ongoing implementation of the Calman-Hine Report "A Policy Framework for Commissioning Cancer Services" and the delivery of care through multi-professional site-specialist teams).

This audit of waiting times was intended to help the Trust review how services are organised and delivered and to identify any need for action, for example in the areas of staff, equipment, facilities and data collection.

Patients included in the audit were those who had received a first diagnosed with a primary cancer during October 1997, however difficulties in identifying these patients from hospital IT systems drew the validity of the final sample of 63 patients into question.

Results:

- Mean time from GP referral to being seen by specialist = 31 days
- Mean time from (any) referral to being seen by specialist = 23 days
- Mean time from first being seen to confirmed diagnosis = 21 days
- Mean time from first being seen to first treatment = 37 days

The results are taken from local analysis of the data. National results have still not been published.

3.3.2

Are patients' case notes being maintained to the standard required by the Clinical Negligence Scheme for Trusts (CNST)? »

Tracey Jones

Accurate record keeping is essential practice in high quality healthcare. The clinical record acts as an accurate representation of a patient's medical history and allows for continued care without unnecessary duplication. The medical record is also essential evidence in litigation cases.

This audit considered the following aspects of record-keeping: presentation, identification of patient, chronology, legibility, dating and signing of all entries, filing of results and reports, appropriate information recorded on prescription charts and discharge summaries.

The following directorates participated: Children's Services, Dental Services, Homoeopathic Medicine, Medicine, Mental Health, O&G/ENT, Oncology, Surgery. In particular the project involved audit facilitators, the UBHT Legal Department and various Medical Records Departments.

The results showed that all directorates had some scope for improvement. The following standards were comparatively poorly adhered to:

- Making corrections with a single line
- Chronological filing
- Filing results of tests in the appropriate places

Results have been disseminated to directorates for discussion and it is hoped that consensus can be reached on formal Trust-wide standards. This topic will be re-audited.

Evidence-based references:

McCoy J, Dugan S. Clinical records audit - implementing Trust-wide standards. *J Clin Eff*, 1998;3: (1) p39
Jones K. *Healthcare Risk Report*, May 1998

3.3.3

Are we meeting Trust-wide standards for Infection Control? »

Chris Perry, Infection Control Nurse

Control of hospital acquired infection is a key activity in the provision of quality care. With 3% of all patients admitted to hospital developing a hospital acquired infection (Public Health Laboratory Service, 1997), there are benefits to be realised, for both patients and the Trust in the reduction of infection. The aim of this audit is to establish the extent to which current practice complies with recognised infection control standards and specifically to:

- Maintain/improve clinical standards
- Identify areas where practice development is necessary
- Identify what education is required
- Assist in the setting of priorities for the Infection Control Team
- Inform the formulation of a planned infection control programme

The following standards have been agreed:

- The ward area will be maintained appropriately to negate the risk of cross infection.
- Waste will be disposed of in accordance with legislation and safely to prevent injury or contamination.
- Laundry will be handled, bagged and stored appropriately to negate the risk of cross infection.
- Sharps will be handled safely to negate the risk of sharps injury.
- Equipment will be decontaminated appropriately and stored correctly to negate the risk of infection.
- Disinfectants are available and used correctly to prevent cross infection.
- Hands will be washed using an appropriate cleaning agent at the correct facilities.
- Clinical practice will reflect infection control guidance and evidence based practice to negate the risk of infection to patients and provide the appropriate protection to staff.

Evidence-based references:

Millward S, Barnett J, Thomlinson D (1993) A clinical infection control audit programme: evaluation of an audit tool used by infection control nurses to monitor standards and assess effective staff training. *Journal of Hospital Infection*. **24**, 219-232.

Public Health Laboratory Service (1997) Hospital acquired infection – Surveillance policies and practice. Public Health Laboratory Service: London.

Wards are visited unannounced and a chain of responsibility has been agreed for responding to the auditor's subsequent report. Data collection has recently begun.

3.3.4

Can we establish Trust-wide standards for handling bereavement? ■ ▶

Marjorie Ball, Chris Swonnell & Roger Chapman

In 1999/2000 the newly created Quality & Consumer Committee (which, along with the CAC, reports to the Clinical Governance Committee) will be looking at the wider qualitative and quantitative aspects of care which are sometimes overlooked. The QCC is also keen to encourage a collaborative approach these topics. The bereavement project is one such example. The planning of this project has brought together representatives from both Clinical and Internal Audit, building upon the shared ideas and methodologies originally highlighted in UBHT's generic Audit Manual (1998).

3.3.5

Can we establish Trust-wide standards for the treatment and prevention of pressure sores? ■ ▶

Lindsey Scott & Michaela Arrowsmith

During 1998/9 the Trust has appointed a Practice Development Nurse. It was agreed that as part of her job description the PDN would be asked to lead the development of evidence-based policies and guidelines for the treatment and prevention of pressure sores. In the event the PDN has gone on maternity leave and SS/N Arrowsmith has therefore been seconded to this specific task (one day a week for a year). An initial fact-finding exercise has revealed that only two areas of the Trust (BCH & BGH) are carrying out regular monitoring of pressure sores. The majority of areas are, however, using the Waterlow Risk Assessment Score in some form. The Stirling Pressure Sore Severity Scale is also widely used throughout the Medical and Surgical directorates. There are currently no clinical standards relating to pressure sores in any area. Further work in 1999/2000 will seek to develop Trust-wide standards and an appropriate framework for monitoring pressure sores.

3.4 Directorate reports

ANAESTHESIA

SUMMARY

Number of 1997/8 roll-overs ◀	3
Number of new audits ■	9
Number of re-audits ●	3
Number of ongoing monitoring projects ▶	3
Total number of audits	18
Number of current (i.e. uncompleted) audits ▶	9
Multidisciplinary audits	7/15 (47%)
Interface audits	1/15 (7%)
Audits measuring against or resulting in development of standards or guidelines	11/15 (73%)
Audits involving standards or guidelines which have been/will be developed following consideration of available evidence about clinical effectiveness	7/15 (47%)
Audits which directly involved patients <i>(percentages above do not include 1997/8 roll-overs)</i>	4/15 (27%)
Audits resulting in changes in practice <i>(percentages above include 1997/8 roll-overs, but not 1998/9 'current' projects)</i>	5/9 (56%)
Re-audits confirming improved patient outcomes <i>(percentages above include completed re-audits and ongoing projects only)</i>	1/4 (25%)

EXEMPLAR AUDITS

3.4.1.1

How do trainee anaesthetists' working hours compare with government standards? ●

Dr S M Underwood, Consultant Anaesthetist

Government standards state that junior doctors should work up to 56 hours a week on a full shift pattern, 64 hours on partial shift pattern and 72 hours for an on-call system. This audit showed that overall, trainees are working acceptable hours and furthermore that these hours have fallen since 1995 (date of previous audit).

3.4.1.2

Are patients satisfied with control of pain and nausea immediately post-Day Case Hernia and Varicose Vein Surgery? ■

Dr Brian Williams

The local standard states that "all patients who undergo day case surgery are provided with effective analgesia and appropriate advice to enable them to control any post-operative pain to an adequate, acceptable and safe degree". Over the course of four months between 1/6/98 and 30/9/98, two questionnaires were sent to a sample of patients in order to ascertain whether the standard was being achieved.

The results indicated that 78% of patients (n=55) had experienced mild-to-moderate pain at 12 hours post-surgery (69% at 24 hours). Only 21% (8% at 24 hours) had corresponding levels of nausea. 7(13%) patients who experienced severe pain at 24 hours will shortly have their cases reviewed as part of preparation for a further audit in 1999/2000.

NATIONAL AUDIT

3.4.1.3

Are patients experiencing headache after obstetric regional anaesthesia? ■ ▶

Dr S M Kinsella, Consultant Anaesthetist

Data is being collected as part of the National Obstetric Anaesthesia Database Project. Headache after obstetric regional anaesthesia is the commonest significant complication, but is also seen post-partum in women without such intervention.

OTHER PROJECTS

3.4.1.4

Are patients free from pain following thoracic surgery? ■

Dr Simon Massey

Thoracic anaesthesia is a new service within UBHT. 94% of patients had a visual analogue pain score of between 0 and 4 (out of 10). This compares favourably with a national norm of 90%.

3.4.1.5

Has the loss of a second on-call anaesthetist affected patient care detrimentally? ■

Dr S Willatts

This workload analysis established that in terms of delays and possible risks to patients, the absence of a second on-call anaesthetist had not affected the quality of care.

3.4.1.6

Are patients satisfied with obstetric epidural pain relief? ◀

Dr T Thomas, Consultant Anaesthetist

95% of patients expressed an overall satisfaction with pain relief (comparable with previous audit in 1996). 56% were able to move their legs during epidural (improvement from previous 40%). 19% experienced backache in the first two days after childbirth (target <15%)

3.4.1.7

Can recovery times at St Michael's be reduced? ■ ▶

Dr S Harris, SHO

Prolonged recovery time can delay the throughput of elective patients and the start of evening emergency lists, as well as adding to the workload. In particular this audit focuses on the possible link between use of im/parenteral morphine and length of recovery stay. Data is being collected.

3.4.1.8

What is the incidence of post-operative nausea and vomiting within 48 hours post strabismus surgery? ■ ▶

Dr F Forrest, Consultant Anaesthetist

This audit resulted from anecdotal reports from staff that incidents of PONV were on the increase. Data currently being collected.

3.4.1.9

What problems are being experienced with regional anaesthesia for caesarian section? ■ ▶

Dr S M Kinsella, Consultant Anaesthetist

This audit focuses on variations from planned practice – where changes in anaesthetic technique, analgesic supplementation and/or conversion to general anaesthetic have occurred. Data is currently being collected (not routinely available through 'Stork' system). Results relating to complication/failure rates will inform the process of providing appropriate patient information and obtaining meaningful consent.

3.4.1.10

How successful is the newly standardised infusion mixture in post-operative epidural analgesia for gynaecology patients? ■ ▶

Dr Andy Cohen, SHO

Following identified variations in practice, a standardised low dose mix has been introduced at St Michaels Hospital. This audit is currently being undertaken to ensure the efficacy of the mix and to monitor any associated side-effects.

3.4.1.11

Are admissions to the Day Unit (Ward 1, BRI) appropriate? ▶

Dr D Terry, Consultant Anaesthetist

The purpose of this ongoing audit is to minimise the number of patients who present to the Day Unit and subsequently have to be admitted. Between February 1998 and January 1999 inclusive, 67 patients were admitted, representing a 15% reduction on the previous year.

3.4.1.12

Intensive Care National Audit & Research Centre (ICNARC) Database ▶

Dr S Willatts

Ongoing ICNARC data collection monitors clinical outcomes of patients requiring Intensive Therapy and provides comparisons with national data. Unexpected outcomes are identified for close scrutiny. The most recent available figures – for the first six months of 1997 - show a 14% reduction in the number of admissions compared to the previous six months and a 1.5% improvement in the unit survival rate.

3.4.1.13

Are children experiencing acute pain following major surgery? ▶

Dr P Stoddart, Consultant Anaesthetist

This audit is based on the premise that patients should not experience acute pain following major surgery and that unpleasant side-effects of pain-control should be minimised. Overall c3% of approximately 500 patients surveyed were dissatisfied with their analgesia, however this figure rose 10% amongst appendicectomy patients. These figures are due to be discussed at the next departmental meeting.

3.4.1.14

Does completion of anaesthetic records comply with standards set by the GMC? ● ▶

Nikki Evans, Clinical Audit Facilitator

Data is currently being collected for this re-audit (original audit 1996).

3.4.1.15

Are cardiac resuscitation trolleys sufficiently well equipped? ● ▶

Keith Lewis, Resuscitation Officer

An earlier pre-audit showed that many trolleys were being inadequately stocked and monitored. Local standards were therefore agreed and are currently being audited against.

3.4.1.16

Are levels of monitoring and anaesthetic apparatus checks in accordance with standards laid down by the Association of Anaesthetists of Great Britain & Ireland? ■ ▶

Dr Jonathan Howes

Data is currently being collected at UBHT, Southmead and Frenchay.

3.4.1.17

Are patients available for pre-operative assessment? ◀ ▶

Dr S Howell, Consultant Anaesthetist

This audit was based on a general perception that lists start late and run inefficiently because patients are not available for pre-operative assessment. A locally agreed standard states that patients should be on the ward at least 30 minutes prior to their operation and that all relevant information should be available for the anaesthetist. In 25% of lists, at least one patient was not available at the appropriate time and in 25% information was not available. These problems led to delayed starts in 35% of lists. Recommendations following this audit are currently under discussion.

3.4.1.18

Can Trust-wide guidelines be agreed for post-surgical pain relief? « »

A K McIndoe, Lecturer in Anaesthesia

This pre-audit is an attempt to establish Trust-wide guidelines for appropriate, effective and patient-acceptable analgesia following different types of surgery. This project has been delayed by the theft of the Psion palmtop computer which was being used for data collection.

PROBLEMS ENCOUNTERED & LESSONS LEARNED

“A major difficulty for this year was the loss of project continuity caused by the three month break between the departure of one audit facilitator and the arrival of a new one. In the interim a number of new projects suffered through lack of guidance. In the future all audits will be initiated following discussion with the audit facilitator. There is also scope for more multiprofessional and cross-directorate audit in the future”.

CARDIOTHORACIC SERVICES

Important note: The Directorate of Cardiothoracic Services will be publishing a separate report later in 1999 which will include morbidity and mortality data for adult cardiac surgery and cardiology.

SUMMARY

Number of 1997/8 roll-overs ◀◀	0
Number of new audits ■	2
Number of re-audits ●	1
Number of ongoing monitoring projects ▶▶	<i>See separate report</i>
Total number of audits	3+
Number of current (i.e. uncompleted) audits ▶	0
Multidisciplinary audits	1/3 (33%)
Interface audits	1/3 (33%)
Audits measuring against or resulting in development of standards or guidelines	3/3 (100%)
Audits involving standards or guidelines which have been/will be developed following consideration of available evidence about clinical effectiveness	3/3 (100%)
Audits which directly involved patients <i>(percentages above do not include 1997/8 roll-overs)</i>	0/3 (0%)
Audits resulting in changes in practice <i>(percentages above include 1997/8 roll-overs, but not 1998/9 'current' projects)</i>	2/3 (67%)
Re-audits confirming improved patient outcomes <i>(percentages above include completed re-audits and ongoing projects only)</i>	1/1 (100%)

EXEMPLAR / INTERFACE AUDIT

3.4.2.1

Are Myocardial Infarction patients receiving clinically effective treatment to prevent further infarcts? ■

Dr Tim Cripps

Cardiology

This project took first prize at UBHT's 1998/9 'Audit Oscars'

Coronary Heart Disease is a major cause of mortality and morbidity in the UK. The risks for these patients can be substantially reduced by changes in lifestyle and drug therapies. Recent studies suggest that many eligible patients are not receiving appropriate therapy. Hospital doctors and GPs often assume the other is providing the care needed to minimise the risk of re-infarction.

This primary care interface project which involved Dr Tim Cripps (Consultant Cardiologist), Dr Hilary Portch (Clinical Assistant) and Dr Rachel Brown (GP), was carried out with the explicit aim of assessing the application of established "best practice" in post MI patients in order to reduce the risk of further MIs and to control worsening cardiac function.

Prior to commencing the audit, standards were agreed for the following aspects of treatment:

- Patients should have cholesterol and BP checked on admission and again within 3 and 6 months respectively
- Patients should have aspirin, beta blocker and ACE inhibitor unless contra indicated
- Patients should have either an angiogram or an echo
- Patients with a complication should have a hospital follow up within 6 months
- An exercise ECG should be arranged within 6 weeks of MI
- A lifestyle assessment should be done within 6 months of MI
- Discharge letter should be received by GP within 10 days of MI and should include discharge medication, infarct site and type.

These standards were based on published evidence of effectiveness, in particular the following:

- ASPIRE Steering Group (Heart 1996, 75, pp334-42)
- Sacks *et al* (New England Journal of Medicine 1996, 335, pp1001-9)
- Smith & Channer (BMJ 1995, 311, pp917-918)
- Eccles & Bradshaw (BMJ, 1991, 203, p91)

The standards were graded according to the type of evidence used.

The results showed the following:

- Cholesterol checked in 90% patients
- 65% treated with statins, dropping to 26% by six months
- BP always checked in hospital but recording poor on discharge making it difficult for GP to treat
- 97% eligible patients prescribed aspirin
- 91% prescribed beta blockers
- 85% prescribed ACE inhibitors in hospital, dropping to 70% for beta blocker and ACE at GP
- All patients requiring angiogram had one, but only 42% received an echo
- Only 45% of patients had an exercise ECG
- 96% of discharge letters were received by the GP within 10 days of discharge, medication prescribed was almost always recorded, however reasons for not prescribing was rarely documented, neither were cholesterol and blood pressure measurements

Following the audit, discussion between local GPs and cardiologists has focused on the following:

- Inclusion criteria for a "Co-op Card". The card will be used for patients going through cardiac rehabilitation and will include medication given, contraindications, hospital appointments and advice for lifestyle changes. (presently being developed)
- All patients (where appropriate) are to have an exercise ECG before discharge (practice changed)
- Production of a standardised discharge summary (still under discussion)
- Agree areas of responsibility for primary and secondary care (still under discussion)

OTHER PROJECTS

Cardiac Surgery

3.4.2.2

Are we maximising the use of left internal thoracic artery (LITA) grafts to the left anterior descending coronary artery (LAD) in primary coronary airways bypass grafting (CABG)? ■

Alan Bryan, Consultant Surgeon

Use of LITA grafts is strongly supported by evidence of clinical effectiveness. The aim of the audit was to maximise the use of LITA grafts and identify reasons for their non-use. 89% of patients undergoing CABGs had a LITA graft to the LAD. In a small percentage of cases, no reason was given for non-use. This point will be addressed, however practice is otherwise in line with national and international guidelines.

3.4.2.3

How efficient is the ordering of blood and blood products following adult cardiac surgery at the BRI? ●

A Cohen

This joint audit with Pathology showed that a reduction in blood ordering for routine surgery had been achieved, but suggested a number of possible areas for further rationalising the use of blood and blood products. The process of audit has heightened awareness about appropriate practice.

ALSO SEE...

Anaesthesia – “Are patients free from pain following thoracic surgery?” (3.4.1.4)

Dental Services – “How good is the dental health of children attending cardiology outpatient clinics?” (3.4.5.11)

CHILDREN'S SERVICES

SUMMARY

Number of 1997/8 roll-overs ◀	6
Number of new audits ■	7
Number of re-audits ●	3
Number of ongoing monitoring projects ▶	0
Total number of audits	16
Number of current (i.e. uncompleted) audits ▶	3
Multidisciplinary audits	5/10 (50%)
Interface audits	1/10 (10%)
Audits measuring against or resulting in development of standards or guidelines	8/10 (80%)
Audits involving standards or guidelines which have been/will be developed following consideration of available evidence about clinical effectiveness	5/10 (50%)
Audits which directly involved patients <i>(percentages above do not include 1997/8 roll-overs)</i>	3/10 (30%)
Audits resulting in changes in practice <i>(percentages above include 1997/8 roll-overs, but not 1998/9 'current' projects)</i>	5/13 (38%)
Re-audits confirming improved patient outcomes <i>(percentages above include completed re-audits and ongoing projects only)</i>	0/3 (0%)

EXEMPLAR AUDITS

3.4.3.1

What is the quality of play provision within Children's Services? ●

Elaine Eastman, Play Co-ordinator

Play Department

The local standard for play provision states that children will be able to play "according to their age, emotional, developmental and cultural needs in a safe environment". 85% of the designated play areas were found to be suitably clean and safe. 85% were appropriately resourced for age and development, however only 65% were appropriately resourced for cultural needs. As a result of the audit a form has been introduced by which wards can refer children for play therapy and an information booklet has been produced for parents. Identified deficits in play materials have also been rectified.

3.4.3.2

What is the survival rate amongst Bone Marrow Transplant patients admitted to the Paediatric Intensive Care Unit? ■

Dr Corinne Hayes

Paediatric Intensive Care

This activity analysis which involved Oncologists, BMT and PICU physicians looked back over 10 years of admissions. Results indicated that 10% of all BMT patients were admitted to PICU and that 25% of these admissions survived. The low survival rate reflects the fact that patients must be particularly ill in order to warrant transfer from the sterile environment of the BMT unit to the non-sterile environment of PICU. It does, however, contradict the inherent belief that none of these patients survive. There is currently a lack of comparative data and the study has since been expanded into a national prospective study.

OTHER PROJECTS

General Paediatrics

3.4.3.3

Are parents of sick children being accommodated on a fair basis? «

Jeanine Erskine, Nurse Practice Group

This audit showed that 63% of requests for accommodation had been met and that the majority of these requests were from families living outside the Bristol area. On average, parents wait 2 days before accommodation becomes available. Consensus standards are being developed concerning prioritisation of accommodation.

3.4.3.4

How efficient is the central venous catheter service in Oncology and BMT (Bone Marrow Transplant)? ●

Mr Ross Fisher & Chrissie Gardner

This re-audit of a project originally conducted in 1997 revealed improvements in waiting and turnaround times and also in the listing of procedures. Delays in obtaining consent and time spent waiting for factor 8 to be given continue to be a problem.

3.4.3.5

Do children receiving growth hormone treatment meet appropriate criteria? «

Dr Crowne, Dr Bevan, Jill Gethin & Chrissie Gardner

A total of 28 children were identified as receiving growth hormone treatment. All of them met the inclusion criteria. The audit highlighted the fact that several different ICD10 codes were being used for day case treatment and this problem is being addressed.

3.4.3.6

Are children on wards wearing identification bracelets? ●

Connie Wakley, Sister

84% of children (81/96) were wearing an ID bracelet. Although short of the ideal, this represents an improvement on the previous audit in 1998 (73%).

3.4.3.7

Is the endocrine testing service being run in a timely fashion? « ›

Dr E Crowne, Jill Gethin

This project is looking at whether tests run on time. Local standards have been developed and data is currently being analysed.

3.4.3.8

How useful and relevant is the information currently given to parents of children receiving Endocrine tests? « ›

Dr E Crowne, Jill Gethin

Data is currently being analysed.

Community Child Health

3.4.3.9

Are school medical room facilities suitable for medical examinations? ■ ›

Dr Mary Rodgman, Community Child Health

A questionnaire based on the recommendations of the Royal College of Paediatrics and Child Health was sent to school nurses. Feedback revealed that most school rooms are inadequate for medical examinations. This information has been passed to head teachers and their response is awaited.

3.4.3.10

Are children in care having medical examinations? ■

Dr Melissa Gladstone

It is estimated that 1 in 10 children in care suffer from ill health. This audit of patients' records showed that 88% of children received a medical examination within 3 months of coming into care, however only 4% of these medicals were recorded on the appropriate form. Around 80% of notes included a record of past medical history and evidence of a full examination. Attempts to liaise with Social Services to verify the accuracy of our figures regarding the number of children in care were unsuccessful.

Radiology

3.4.3.11

How much qualified nurse time is spent escorting patients to the X-ray department at BCH? ◀

Helen Cutler, Senior Radiographer

This audit measured against standards set following a previous pre-audit. During a two week period in October 1998 over 14 hours of nursing time were spent escorting patients to x-ray. 80% of escorts were qualified nurses (a 10% reduction compared to the pre-audit), 6% were HCAs and 14% were students. Further efforts (e.g. improved communication) will be made to reduce escort time.

ENT

3.4.3.12

Is early discharge possible for children undergoing tonsillectomy? ■ ▶

Mr Griffiths & Hayley Brooks

This pre-audit was undertaken in order to ascertain whether – hypothetically – children could be discharged at 6 hours. 50% of the cases examined would have been fit for discharge. Of those who were not, the most common reason was nausea and vomiting. Wide variation in pain control given to children both pre and post-operatively has led to the introduction of practice guidelines. The question of whether early discharge is feasible is still under discussion. An unexpected finding of this audit was a higher than anticipated post-operative bleeding rate and this matter is now being examined separately.

Neonatology

3.4.3.13

How do local rates for Periventricular Haemorrhage (PVH) & Periventricular Leucomalacia (PVL) association with the use of high frequency oscillatory ventilation (HFOV) compare with national norms? ■

Dr D Bennett & Dr G Russell

Local rates were found to be comparable with published data. The overall incidence of PVH has remained static, however the proportion of the haemorrhages that are severe has decreased as have Grade I haemorrhages. Since the Grade I haemorrhages would be expected to be associated with better neurological outcome this could be perceived as an improvement.

3.4.3.14

Are neonates being transported safely and efficiently between BCH, BRI and Frenchay? ■

Dr Glynn Russell, Julie Webster and Chrissie Gardner

Neonates are regularly transported between the three sites for investigations. In the event, the two week window of the audit did not include the BRI or Frenchay (transport was to BCH theatres and x-ray). All 15 transportations were undertaken safely, however a number of babies were escorted by two nurses when a nurse and porter would have sufficed (cost issue).

Speech and Language Therapy Department

3.4.3.15

How appropriate are referrals to speech and language therapy clinics? «

Sue Roulstone, Liz Parke & Chrissie Gardner

91% of referrals to the SLT department from Knowle, Hartcliffe and William Budd clinics were deemed appropriate. The median waiting time for an appointment was 24 weeks, compared to the contract standard for 13 weeks. The organisation of appointments has since been revised in an attempt to achieve this standard. It was also noted that parents' level of concern about their child's condition was lower than that of the SLT in 45% of cases (similar concern in remaining 55%) following a visit to the home of all non-attenders by a qualified speech therapist.

Occupational Therapy Department

3.4.3.16

How good is note-keeping in Occupational Therapy? ■

Hazel Tuckfield & Linda Tucker

The completion of OT front sheets and manual handling forms was audited. The results showed that certain information (e.g. reason for referral; addresses) on the front sheet was relatively poorly completed. This was at least in part due to OTs' reluctance to spend time writing duplicate information on different forms. The possibility of using a single computer-generated sheet is being explored.

PROBLEMS ENCOUNTERED & LESSONS LEARNED

"We convened seven audit sessions last year in a program to coincide with the anaesthetic rolling program. The directorate has a disparate group of professionals and interests and so we are addressing ways of trying to maintain momentum with the program – with the audience in particular:

- Fewer meetings organised to try to focus (and not lose) our audience
- Better quality and higher profile subjects
- Targeting the associate directorates that have not been very active to date
- Teaching junior staff about audit as part of their educational program

19% of our audits have achieved re-audit stage. We will engage the individual associate directors in suggesting to the junior staff that re-audit of an existing topic should be achieved within even a short attachment.

In conclusion, the rolling program works as regards engaging the hospital and peripheral staff. Senior staff involvement needs to be encouraged by quality projects with open discussion. The audit cycle will be completed by rotating existing audit programs through new houses of junior staff."

ALSO SEE...

Anaesthesia – "Are children experiencing acute pain following major surgery?" (3.4.1.13)

Pathology – "Are IGF-1 and IGF-BP3 useful predictors of growth hormone deficiency in children?" (3.4.13.13)

Radiology – "How appropriate are requests for erect abdomen radiographs in paediatric radiology?" (3.4.14.14)

COMMUNITY SERVICES

SUMMARY

Number of 1997/8 roll-overs ◀	7
Number of new audits ■	11
Number of re-audits ●	0
Number of ongoing monitoring projects ▶	0
Total number of audits	18
Number of current (i.e. uncompleted) audits ▶	11
Multidisciplinary audits	5/11 (45%)
Interface audits	1/11 (9%)
Audits measuring against or resulting in development of standards or guidelines	7/11 (64%)
Audits involving standards or guidelines which have been/will be developed following consideration of available evidence about clinical effectiveness	2/11 (18%)
Audits which directly involved patients <i>(percentages above do <u>not</u> include 1997/8 roll-overs)</i>	1/11 (9%)
Audits resulting in changes in practice <i>(percentages above include 1997/8 roll-overs, but not 1998/9 'current' projects)</i>	3/7 (43%)
Re-audits confirming improved patient outcomes <i>(percentages above include completed re-audits and ongoing projects only)</i>	0/0 (-%)

EXEMPLAR AUDITS**3.4.4.1****Are all patient wounds being assessed and documented? ◀***Gail Powell, District Nurse*

Wound care constitutes a significant part of a District Nurse's caseload. DNs from bases across the whole of the directorate were asked to submit sample care plans for scrutiny. A total of 147 forms were received. Only 11% of wounds had been properly assessed. The site and type of the wound was generally recorded (90% and 100% respectively) however little other information was documented. New assessment and re-assessment tools are subsequently being developed and this subject will be re-audited.

The considerable evidence base for this project included:

1. Journal of Wound Care, May 1996
2. Nursing Times 93(23), 4/6/97, pp76-8
3. British Journal of Nursing 5(22). pp1391-7
4. Nursing Standard 11(10), 27/11/96, pp38-41

3.4.4.2**How does the rate of adequate smear tests provided by the nurse-led Cervical Cytology Clinic compare with national data? ■***Jacalyn Mathers, Treatment Room Sister*

As a result of an unacceptably high rate of inadequate smear tests in a number of GP practices, a nurse-led Cervical Cytology Clinic has been established. This audit found that the rate of unacceptable smear tests has subsequently fallen to 11% although this figure is still higher than the national average of 7%. This topic will be re-audited in 1999/2000.

References:

- Baker, A. (1991) Cervical Screening: The Optimum technique, **Practice Nurse**. January 1991 p.457-462
 Brett M (1997) Inadequate/Unsatisfactory Cervical Smear Guidelines, **Avon Cervical Cytology Screening Service, Bristol**
 Padbury V (1997a) Women's Health Smear taking, **Practice Nurse**. 21 February p.131-134
 Wolfendale M (1995) Taking Cervical Smears. **BSCC**

OTHER PROJECTS

3.4.4.3

Are hygiene practices being followed when weighing babies and young children? ■

Mary Talbot, Clinical Co-ordinator

All staff were found to be following the correct procedures.

3.4.4.4

Are all Year 3 & 4 schoolchildren having eyesight tests at the right time and being appropriate referred if appropriate? ■ ▶

Pat Richards & Val Moore, School Nurses, Granby House Clinic

A local standard has been agreed and data is currently being collected.

3.4.4.5

How effective has the work of the Acute Response Team been this year? ◀ ▶

Helen Lockett, Assistant Manager, Central Health Clinic

This audit is looking at the extent to which the ART has been successful in dealing with winter pressures, i.e. reducing pressure on hospital beds and saving bed days. It also considers patient and GP satisfaction with the service. Data is currently being evaluated.

3.4.4.6

How prevalent are pressure sores in patients seen in the community and how are those sores being treated? ■ ▶

Jane Alder, Lead Professional Nurse & Edith Dougan, Podiatrist

This project is being undertaken to investigate the prevalence of sacral and heel pressure sores in patients seen by District Nurses and Podiatrists in the community over a period of one month. It will seek to identify the origin of the sores (hospital or community) and whether patients are using appropriate pressure-relieving equipment.

3.4.4.7

How prevalent are blocked catheters amongst patients currently managed by District Nurses? ■ ▶

Jane Alder, Lead Professional Nurse

Blocked catheters are a common cause of District Nurse call-outs. Data is currently being collected with a view to setting standards in this area. There is particular interest in the impact of staff education on the audit cycle.

3.4.4.8

Are patients receiving appropriate management for indwelling catheters? ■ ▶

Jane Alder, Lead Professional Nurse & Angela Perrett, Continence Advisor

This audit is being carried out in conjunction with Southmead Urology Department. Data is currently being collected with a view to setting evidence-based standards relating to: frequency of catheter change; testing of urine pH; bladder wash-outs.

3.4.4.9

Do prescriptions for equipment adhere to new European legislation? ◀ ▶

Jess Dougal, Associate Manager, Central Health Clinic

This audit aims to ensure that all staff prescribing equipment have undergone appropriate training and that safety procedures are being adhered to. This project has been temporarily delayed to ensure multiprofessional participation.

3.4.4.10

Is it possible to increase screening rates and follow-up of anaemia at 13 months through improved multi-professional communication? ■ ▶

Rebecca Mullen, Health Visitor

This current audit focuses on improving communication of Hb (haemoglobin) results, ensuring that families receive appropriate dietary advice and increasing the uptake of anaemia screening. Standards will subsequently be agreed locally.

3.4.4.11

Can the health status of people with Downs Syndrome be improved by the provision of an annual health check? ■

Pauline Lawson, Treatment Room Sister, Montpelier Health Centre

This joint initiative between Phoenix NHS Trust and Montpelier Health Centre involved a number of UBHT Treatment Room staff. From a GP practice population of 11,400 patients, 16 people were identified as having Downs Syndrome. Research suggests that people with learning disabilities often have unmet health needs. The identified DS patients were invited for a health check. A number of minor unmet health needs were noted however it was accepted that the population in question was not typical of the wider national picture – all of the identified patients were living in good quality care homes and in regular contact with the GP practice.

3.4.4.12

What is the incidence of recurrence of leg ulcers within one year of healing? ■ ▶

Sue Hinchley, District Nurse, Amelia Nutt Clinic

This current audit is being undertaken with the intention of establishing guidelines for the prevention of recurrence leg ulcers.

3.4.4.13

Can the amount of assessment and treatment time given to physiotherapy outpatients be increased without detrimental effect on the service? ■ ▶

Jane Golden, Physiotherapist, Outpatient Department, Central Health Clinic

The current duration of assessment and treatment times in outpatient physiotherapy are 40 minutes and 20 minutes respectively. It was hypothesised that by increasing these times to 60 minutes and 30 minutes respectively a) the number of subsequent patient contacts could be reduced and b) waiting lists would not increase. A trial is currently being conducted.

3.4.4.14

Are bank nursing staff given sufficient information and equipment to perform their job? ■ ▶

Karen Cole, Bank Nurse Co-ordinator, Central Health Clinic

This current audit is being undertaken in order to ensure that there is adequate communication between community bases and the nurse bank. Standards will be agreed.

3.4.4.15

Has the Community Link Card System been beneficial to staff and patients? «

D Harrison, J Treadwell

There were mixed views about the value of the CLCS, but in any case its continued use would require financial investment which has not been forthcoming.

3.4.4.16

Do referrals to the Disability Services Team meet agreed criteria? «

K Russell, Disability Services Manager

This audit confirmed that referrals met the required criteria and therefore no changes in practice were required.

3.4.4.17

Do Health Visitors and School Nurses find the CCO Helpline useful? «

Mrs J Mumford, Clinical Co-ordinator, CHC

This audit confirmed that staff were benefiting from the helpline which has subsequently continued.

3.4.4.18

Are patients being assessed by a G-grade nurse within 24 hours of referral? « ▶

This project is currently 'on hold' following the retirement of the project lead.

PROBLEMS ENCOUNTERED & LESSONS LEARNED

“Time spent at the planning stage is well worth it – don’t rush in where angels fear to tread!
More local standards need to be produced however we must remain sensitive to the pressures on nursing staff”

ALSO SEE...

Anaesthesia – “Are patients satisfied with control of pain and nausea immediately post-Day
Case Hernia and Varicose Vein Surgery?” (3.4.1.2)

DENTAL SERVICES

SUMMARY

Number of 1997/8 roll-overs ◀	1
Number of new audits ■	11
Number of re-audits ●	3
Number of ongoing monitoring projects ▶	1
Total number of audits	16
Number of current (i.e. uncompleted) audits ▶	5
Multidisciplinary audits	2/15 (13%)
Interface audits	2/15 (13%)
Audits measuring against or resulting in development of standards or guidelines	14/15 (93%)
Audits involving standards or guidelines which have been/will be developed following consideration of available evidence about clinical effectiveness	8/15 (53%)
Audits which directly involved patients <i>(percentages above do <u>not</u> include 1997/8 roll-overs)</i>	6/15 (40%)
Audits resulting in changes in practice <i>(percentages above include 1997/8 roll-overs, but not 1998/9 'current' projects)</i>	7/11 (64%)
Re-audits confirming improved patient outcomes <i>(percentages above include completed re-audits and ongoing projects only)</i>	4/4 (100%)

EXEMPLAR AUDIT**3.4.5.1****Have standards of record-keeping in restorative dentistry improved? ●***Susan Hooper***Restorative Dentistry**

A new treatment record was introduced in 1994 following an audit which examined the level of student and staff compliance in completing the existing departmental record cards. This five-year retrospective audit which involved staff and students from restorative dentistry confirmed high standards of record keeping with the exception of instances where patients undergoing extensive treatments experienced a change of student. Regular spot-checks of the database are now aimed at ensuring completeness of recording.

EXEMPLAR / REGIONAL AUDIT**3.4.5.2****Ectopic canine teeth – are referrals to BDH of an appropriate age? ●***Nigel Harradine***Orthodontics**

Guidelines produced by the Royal College of Surgeons (1997) state that in order to allow interceptive measures and simpler treatment, patients with ectopic canine teeth should be referred before the age of 12 for girls and 13 for boys. A previous regional audit showed that only 32% of patients were referred before the age of 14. The relevant guidelines were therefore distributed to referrers and four months later a re-audit took place. The results showed that the average age of referrals had fallen from 15.4 to 12.5 years region-wide and that 75% of BDH referrals were children under 14 years old.

This project involved orthodontic clinicians at BDH and at Frenchay, Weston and Southmead Hospitals.

REGIONAL AUDIT

3.4.5.3

How does the treatment of maxillofacial trauma in Avon compare with the NCEPOD (National Confidential Enquiry into Perioperative Deaths) guidelines? ■ ▶

Mr C Bell, Senior Dental Officer

Oral & Maxillofacial Surgery

This analysis of clinical activity showed that at BDH 70% of patients were operated on between 09:00 and 18:00 hours. This compares favourably with the national figure of 59%. It has been recommended that more emergency lists and available surgeons are provided between these hours (routine lists sometimes have to be cancelled to handle emergencies).

OTHER PROJECTS

Oral Surgery

3.4.5.4

Are patients receiving sufficient information about why their wisdom teeth need to be removed and possible complications after surgery? ■

Professor J G Cowpe

This audit suggested that only 20% of patients had received the relevant information leaflet. The proportion of patients who had received any kind of information (written or verbal) about specific aspects of surgery and potential complications varied between 60% and 77%. As a result of the audit, the information leaflet has been updated. The importance of giving out information has been reinforced amongst staff.

Community Dental Service

3.4.5.5

Are patients able to have their recall appointments when clinically indicated? ▶

Anne White

The pressure of seeing new patients means that patients do not always get a recall appointment when it is clinically indicated (e.g. at six months). By monitoring appointments and reallocating duties it has been possible to ameliorate the problem in several clinics.

3.4.5.6

Does the community dental service offer an acceptably prompt service for emergency treatment? ■

Derek Scarratt, Southmead Health Centre

92% of patients were seen on the same day or one day after they contacted the clinic. This audit was carried out in response to a local concern about perceived delays, however these concerns are not supported by the evidence.

3.4.5.7

What is the one year survival rate of restorations in lower first primary molars? ◀

Alan Bailey, Community Dentist

28% of restorations had failed by the end of the first year (20% by 6 months). All failed restorations were with glass ionomers. As a result of the audit, glass ionomers will continue to be used, however in the event of failure, preformed metal crowns are indicated.

3.4.5.8

Are local guidelines on cross-infection control on domiciliary visits being followed? ■

Michele Dicks, Dental Nurse

As a result of this audit, secure arrangements for transport of used sharps and contaminated instruments will be introduced (by 1/4/99). Guidelines relating to handwashing on domiciliary visits have been introduced.

Orthodontics

3.4.5.9

What causes unscheduled attendances by patients undergoing active treatment in the orthodontic department? ■

Nigel Harradine

7% of all attendances were unscheduled (target = 5%). 13% of unscheduled appointments were associated with archwire problems. As a result detailed changes in the size and usage of orthodontic archwires were agreed by orthodontics throughout the region. A re-audit is planned.

Restorative Dentistry

3.4.5.10

Are all new referrals for periodontal treatment appropriate? ■

R Yates

Tighter referral criteria have been introduced, based on national guidelines produced by the Royal College of Surgeons (1997). As a result, in September 1998, 30% of referrals were returned to General Dental Practitioners compared to 11% in November 1997, enabling a more manageable caseload at BDH.

3.4.5.11

How many patients fail to complete active periodontal disease treatment? ■ ▶

R Yates

There is currently local concern about the perceived numbers of patients who fail to complete their course of treatment. Data is currently being analysed.

3.4.5.12

What is the DNA (Did Not Attend) rate in Oral Hygiene? ●

S Lockyer, Principal Tutor Dental Hygienist

DNA and cancellation rates in March 1997 were 6.7% & 7.8% respectively. Following the audit, an explanation letter was introduced, stressing to first appointment patients the importance of seeing their course of treatment through to its conclusion and the need to inform the hospital in the event of cancelling appointments. A re-audit covering the period October-December 1998 showed that DNA & cancellation rates had improved to 4.4% and 5.8% respectively.

3.4.5.13

Are radiographic cards being completed by students? ■

Martin Woodhead, Consultant

It is important that radiographic cards are completed in order to monitor the number of x-rays that patients are receiving. In April 1998 72.5% of cards were found to have been completed. Reminders were sent to students, however by January 1999 the figure had fallen to 70.3%. The audit has highlighted the difficulties of changing students' practices. Alternative reminder systems are being considered.

Child Dental Health

3.4.5.14

How good is the dental health of children attending cardiology outpatient clinics? ■ ▶

Mr P Crawford, Consultant

Children with congenital heart disease are at increased risk of developing infective endocarditis. This potentially life-threatening disease can result from failure to maintain good oral and dental health. This survey found that only 68% of children (aged 2+) with CHD were regularly seeing a dentist. Furthermore only 47% of children/carers (as appropriate) understood the importance of good oral/dental health in a child with congenital heart disease. A bid has been made for funding to enable the development of promotional information (in conjunction with the Cardiology department) for children/carers and allow a re-audit to take place in 1999/2000.

3.4.5.15

Are patients/parents satisfied with the paediatric dental service? ■ ▶

Bette Baldwin, Consumer Involvement and Information Unit

In 1998/9 the CIU has undertaken a survey of patients' views about communication, quality of information and their views about being seen by several different members of staff. The aim is to agree some patient-focused standards. Questionnaires are currently being analysed.

Oral medicine

3.4.5.16

Are the agreed guidelines about oral health assessment prior to radiotherapy for head and neck malignancy being followed? ■ ▶

Mr A Brooke, Senior Dental Officer

It is well recognised that the long term effects of radiotherapy have a major effect on oral health, most importantly on the capacity of the bone to heal after tooth extraction. All patients should have their teeth examined before starting radiotherapy. The audit found that only 8/14 (57%) patients attending the joint Oncology clinic at BDH had been assessed dentally prior to radiotherapy and that 4 of these patients required extractions (i.e. it is possible that some of the patients who were not assessed may have required extractions). 13/14 (93%) of patients said that they had received information about the side-effects of radiotherapy.

PROBLEMS ENCOUNTERED & LESSONS LEARNED

"It is difficult to get clinicians to focus on measuring performance against a standard of practice. Some audits therefore tend to lean more towards surveys with data being collected for administrative rather than audit purposes. The heavy workload on clinics tends to mean that completion of audit proposal forms is seen as a low priority. Accomplishing change following audit is also difficult."

HOMOEOPATHIC MEDICINE

SUMMARY

Number of 1997/8 roll-overs ◀	0
Number of new audits ■	4
Number of re-audits ●	0
Number of ongoing monitoring projects ▶	2
Total number of audits	6
Number of current (i.e. uncompleted) audits ▶	3
Multidisciplinary audits	1/6 (17%)
Interface audits	0/6 (0%)
Audits measuring against or resulting in development of standards or guidelines	3/6 (50%)
Audits involving standards or guidelines which have been/will be developed following consideration of available evidence about clinical effectiveness	1/6 (17%)
Audits which directly involved patients <i>(percentages above do <u>not</u> include 1997/8 roll-overs)</i>	1/6 (17%)
Audits resulting in changes in practice <i>(percentages above include 1997/8 roll-overs, but not 1998/9 'current' projects)</i>	3/3 (100%)
Re-audits confirming improved patient outcomes <i>(percentages above include completed re-audits and ongoing projects only)</i>	0/2 (0%)

EXEMPLAR AUDITS

3.4.6.1

Does the quality of record keeping in patients' medical notes need improving? ■

Dr David Spence, Clinical Director

Local standards relating to essential minimum clinical information were agreed, based on those used in another NHS homoeopathic hospital. The audit revealed that 35% of notes met these standards. As a result of the audit, a summary consultation sheet is now included in patients' records for doctors to complete. In addition, a form is sent to patients prior to their first appointment requesting routine information, enabling more productive use of consultation time.

3.4.6.2

How efficacious are homoeopathic interventions at BHH? ▶

Dr David Spence, Clinical Director

A comprehensive database has been established to monitor outcomes of homoeopathic treatment. Outcomes are measured against an agreed local scale by the treating clinician. Variations in patient morbidity according to treating clinician are regularly reviewed with a view to maintaining best practice. The realisation that diagnoses were not always precise has led to the introduction of ICD10 coding for all consultations.

OTHER PROJECTS

3.4.6.3

What is the DNA (Did Not Attend) rate at the Bristol Homoeopathic Hospital (BHH)? ▶

Dr David Spence, Clinical Director

An examination of records confirmed that DNA rates had risen. Consequently BHH now writes to all new patients two weeks prior to their first appointment, stressing the importance of prompt cancellation in the event of being unable to attend. DNA rates will continue to be monitored.

3.4.6.4

How efficacious is the treatment of Asthma at BHH? ■ ▶

Dr David Spence, Clinical Director

The aim of this audit is to assess the homoeopathic treatment of asthma using a number of different outcome measures and subsequently to agree local management guidelines for the treatment of asthma.

3.4.6.5

Improving the quality of letters to GPs following an outpatient appointment ■ ▶

Dr David Spence, Clinical Director

Minimum standards for the content of letters to GPs have been agreed locally. Data is currently being collected.

3.4.6.6

The diagnosis and management of Chronic Fatigue Syndrome ■ ▶

Dr Christina Scott Moncrief

Analysis of the homoeopathic audit database identified a problem with diagnosis of fatigue-type symptoms and significant variations between clinicians in the outcomes of treatment. Local diagnostic and management criteria have therefore been agreed and are being audited against.

In 1998/9 BHH has also started to peer review cases as part of their audit programme.

PROBLEMS ENCOUNTERED & LESSONS LEARNED

"The part-time staff find it difficult to remember to fill in audit forms and to implement agreed changes in practice. BHH is a generalist department treating a vast range of conditions and therefore to focus on one particular condition for a project has proved difficult. There are currently no national standards or guidelines on homoeopathic practice."

MEDICINE

SUMMARY

Number of 1997/8 roll-overs ◀	6
Number of new audits ■	16
Number of re-audits ●	2
Number of ongoing monitoring projects ▶▶	1
Total number of audits	25
Number of current (i.e. uncompleted) audits ▶	17
Multidisciplinary audits	8/9 (42%)
Interface audits	4/19 (21%)
Audits measuring against or resulting in development of standards or guidelines	14/19 (74%)
Audits involving standards or guidelines which have been/will be developed following consideration of available evidence about clinical effectiveness	13/19 (68%)
Audits which directly involved patients <i>(percentages above do not include 1997/8 roll-overs)</i>	6/19 (32%)
Audits resulting in changes in practice <i>(percentages above include 1997/8 roll-overs, but not 1998/9 'current' projects)</i>	5/7 (71%)
Re-audits confirming improved patient outcomes <i>(percentages above include completed re-audits and ongoing projects only)</i>	1/1 (100%)

EXEMPLAR AUDITS**3.4.7.1****How effective has the appointment of a DVT Nurse been in reducing the amount of time patients with Deep Vein Thrombosis spend in hospital? ▶▶***Pat Coggins, DVT Nurse***General Medicine**

This project was shortlisted for UBHT's 1998/9 'Audit Oscars'

The recent development of treatment for DVT with subcutaneous low molecular weight heparin (LMWH) which may be given on a domiciliary basis has provided an alternative care pathway for a significant proportion of patients previously treated as inpatients with unfractionated heparin (UFH). The average length of stay (ALOS) for DVT nationally is 8.37 days. The annual incidence of DVT is estimated to be 1 per 1000 inhabitants.

This is an excellent example of evidence based practice. Evidence of clinical effectiveness has been used to develop a care pathway in an area of local and national concern. Patients are issued with TED stockings, hosiery and analgesia as well receiving appropriate advice.

A significant improvement in patient care has been realised as a result of this audit. ALOS has been dramatically decreased. During the period April 1997 to October 1998, 47% of patients (n=108) were referred to the DVT nurse. The average length of hospital stay for all DVT patients was 1.27 days. This compares with an ALOS of 12.6 days prior to the introduction of domicilliary treatment. Positive feedback about the service has also been received from a patient survey.

There is ongoing work to ensure that this level of performance continues to be achieved.

References:

1. Koopman et al (1996) Treatment of venous thrombosis with iv unfractionated heparin administered in hospital as compared with subcutaneous low molecular weight heparin administered at home, New England Journal of Medicine
2. Levine et al (1996) Comparison of LMV Heparin administered primarily at home with unfractionated heparin administered in the hospital for Proximal DVT New England Journal of Medicine

3.4.7.2

Are recommendations following a review of patient catering at Bristol General Hospital being followed? ■

Annabelle Legg

Care of the Elderly

A Patient Catering Review had previously highlighted a number of recommendations of action to be made concerning the meal services at the BGH. An audit was conducted on seven wards at the BGH to discover if these recommendations were being implemented. Recommendations included the following:

- Review and change menus to improve choice and nutrition
- Changes on wards to improve meal environment
- Availability of condiments improved
- Increase in availability of snacks, milky drinks, and use of cooked breakfasts to raise patients' calorie intake

The audit involved senior nurses, dietitians and managers in the hospital. An external senior dietitian undertook ward observation, conducted a staff survey and produced a financial report.

The main areas of concern were inadequate nutritional intake of patients, confusion about staff roles at meal times, food choice and quality.

Progress had been made in the following areas

- Increase in food choices available to patients at breakfast, supper and for snacks
- Involvement of HCA throughout meal service at lunch and supper
- Better placing of meals
- Patients eating together
- Allowing patients to finish their main course before pudding is serviced
- Discrete disposal of food away from the bedside or table

NATIONAL AUDITS

3.4.7.3

National Sentinel Audit on Patient Falls ■ ▶

Ruth Bailey, Senior Physiotherapist

Care of the Elderly

This national initiative which involves physiotherapists and occupational therapists is gathering baseline information about the rehabilitation treatment of elderly people who have fallen. The specific objectives are to improve elderly people's ability to withstand threats to their balance and improve the safety of their surroundings. Data is currently being collected.

3.4.7.4

National Sentinel Audit on Evidence Based Prescribing for Older People ■ ▶

Dr Peter Murphy & Chris Swonnell

Care of the Elderly

National data indicates that elderly people are prescribed three times more medication than younger people. The aim of this audit is to support improvements in prescribing and medication use in people aged 65 and over; specifically to ensure that drug treatment is appropriate and avoid prescribing where evidence of benefit is lacking. Planning with Southmead and Bath & West Trusts has been completed and data will be submitted in April.

3.4.7.5

National Sentinel Stroke Audit ■ ▶

Dr Peter Murphy

Care of the Elderly

The aim of this Sentinel Audit is to achieve national consensus about what an ideal stroke service should look like. Results have recently been published, confirming that UBHT is performing well in the provision of stroke care. Key results include:

- UBHT is in the top quartile of trusts showing we have a good level of **communication** with patients and carers
- Score of 100/100 achieved for **assessment measures**, i.e. conscious level, motor impairment and cognitive function (all of which are recorded)
- The Trust also achieved a score of 90/100 for **good interdisciplinary team working** - including Social workers, dietetics, OT Physio and Speech and language therapist (although we do not currently have clinical psychologist involvement)

REGIONAL AUDITS

3.4.7.6

Can region-wide agreement be reached regarding appropriate content for an accredited rheumatology training programme? ◀ ▶

Gina Ludlum, Senior Occupational Therapist

Rheumatology

The Rheumatology department is a diverse multidisciplinary team. Healthcare professionals continue their postgraduate education on study days which have highlighted a gap in training in the south west region. This current baseline audit is seeking to compare current levels of training throughout the region.

OTHER PROJECTS

Care of the Elderly

3.4.7.7

Why do patients attend the William Lloyd Day Hospital and what are the outcomes of their treatment? ■

Ruth Cowell, Manager of the Day Hospital

This audit was undertaken in an effort to optimise the use of resources at WLDH. Reasons for attendance varied greatly: dementia screening, management of cardiac failure, osteoarthritis, Parkinson's disease, imbalance, post cerebrovascular accident. The largest single reason was for physiotherapy or OT input. 52% of patients who had attended the day hospital with a mobility aid subsequently experienced improved mobility and all those who came for specific tests were happy with their outcomes.

Genitourinary Medicine

3.4.7.8

Has the introduction of microscopy of wet preparation made from a High Vaginal Swab (HVS) proved effective in providing accurate diagnosis of Bacterial Vaginosis (BV)? ■

Dr Tessa Crowley

BV is diagnosed in the GUM clinic by 4 criteria: a homogenous grey vaginal discharge, raised vaginal pH, volatile amines released by alkali from the discharge and abnormal microscopy. Whilst this approach may be possible in the GUM clinic, for most patients diagnosis in UBHT is by wet preparation of a high vaginal swab taken and sent in by their GP. The results of this audit indicate that the HVS method is only 37% reliable and therefore that patients wanting an accurate diagnosis (95% reliable) need to travel to the GUM clinic.

3.4.7.9

Are patients satisfied with a multi-disciplinary approach to the treatment of erectile dysfunction? ◀

Dr Tessa Crowley

In addition to seeing a urologist, a MD approach to the treatment of impotence involves the patient seeing a nurse practitioner and psychosexual doctor. 90% of patients expressed a high rate of satisfaction with the service. This was especially true of patients with more complex problems.

3.4.7.10

Are all new patients having serological testing for syphilis? ■ ▶

Jane Scott

Bristol has recently experienced the biggest heterosexual outbreak of syphilis in the UK. Serological screening has the dual purpose of identifying individuals needing treatment and highlighting emerging outbreaks. Data is currently being analysed.

General Medicine

3.4.7.11

How effective is the Home Enteral Feeding Programme? ■ ▶

Pat Howard, Head of Nutrition and Dietetics

A home enteral feeding service was established because of the numbers of patients who no longer need hospital care but do still require enteral feeding. Specific objectives of this current project are to see that patients reach their target weight and ensure that factors effecting patients' weight and feeding are investigated. Data is being analysed.

3.4.7.12

Can Occupational Therapy assessments be made without a home visit? ■ ▶

Rosemary Johnson, Occupational Therapist

Removing home visits would free up OT time and reduce staff stress. The results of this pre-audit of new methods of assessment will be published shortly.

3.4.7.13

Has the temporary purchase of nursing home beds succeeding in ameliorating winter bed pressures? ◀

Dr Simon Croxson

Recent years have seen a 30% increase in winter bed pressure. In the winter of 1997/8 a decision was taken to purchase ten beds in one nursing home for a period of three months. As a result a total of 586 bed days were saved. 21 patients were transferred to the nursing home, 14 of whom had a delayed discharge awaiting a nursing home of their choice. Patients and carers understood the need to transfer and co-operated fully.

3.4.7.14

What are the reasons for emergency admissions to the Directorate of Medicine? ■ ▶

Dr Gerry Tobin, Consultant

There has been a well-documented rise in emergency medical admissions. In order to assist with planning service delivery, the directorate was granted a sum of £16,000 to investigate reasons for this phenomenon. This project will continue in 1999/2000.

3.4.7.15

What is the quality of nursing notes in the directorate? ● ▶

Kate Suter, Ward Manager

This re-audit is being undertaken as a follow-up to the CNST casenote audit (see *Trust-wide Audits*) to ensure that the quality and accuracy of nursing notes complies with UKCC standards. Results will be published in June 1999.

3.4.7.16

Is the nutritional status of patients being adequately monitored? ◀ ▶

Dr Chris Probert, Consultant

Research shows that malnourished patients have higher rates of complications and a longer length of stay in hospital. Studies also show that up to 44% of medical patients in hospital are malnourished and that this often goes unrecognised by nursing and medical staff. This current audit looks at whether the nutritional status/BMI of patients is being recorded on admission and whether patients are being referred to the dietician. Data will be presented in April 1999.

3.4.7.17

Is the directorate's antibiotic prescribing policy being followed? ■ ▶

Katherine Ashworth, Debbie Campbell, Hippolyte Fraser

Ensuring that patients receive the correct supply and dosage of antibiotics avoids unnecessary complications and helps cost-efficiency. Separate studies are being conducted at the BRI and BGH with a view to establish antibiotic prescribing guidelines. This is a joint project with the directorate of Pathology. Data is currently being analysed.

3.4.7.18

Is the Trust prescribing policy being followed in the directorate of Medicine? ■ ▶

Katherine Ashworth

This current audit is being undertaken to ensuring that prescribing in Outpatients, Inpatients (TTAs) and A&E complies with standards set in the prescribing policy (1997).

3.4.7.19

Are patients satisfied with information about osteo-arthritis of the knee? ◀ ▶

Mandy Cottle

There has been an increase in the number of patients requesting information about exercise. This has led to the production of literature for this group of OA knee patients. Results have yet to be published.

3.4.7.20

Can the DNA rate in the Physiotherapy Department be reduced? ■ ▶

Guy Canby

It has been noticed that there are high numbers of DNAs at first appointments for outpatient physiotherapy. This current project is being undertaken in order to find out reasons for this in the hope of being able to reduce the DNA rate.

Dermatology

3.4.7.21

Are patients seen in the Dermatology clinic using appropriate treatments for acne prior to their referral? ■

Dr Kirkup

Acne vulgaris is common and mainly managed in the community. Isotretinoin is indicated for severe acne and is only available following hospital referral in the UK. Evidence exists that it is cost effective to treat both severe and milder acne with this drug. Results showed that 47% of patients had received antibiotic treatment for too long. 63% of patients had received treatment which deviated from GP guidelines. Revised guidelines are therefore being issued to GPs in an effort to raise awareness of the issue. This topic will be re-audited.

3.4.7.22

Have AHA recommendations about combing reduced the prevalence of head lice in local primary school children? ● ▶

Dr Anthony Downs, Registrar

An increased resistance of head lice to insecticides has led Avon Health Authority to recommend regular combing as an effective treatment. Results will be published in the near future.

Rheumatology

3.4.7.23

Are rheumatoid arthritis patients benefiting from wearing night resting splints? « »

Gina Ludlum, Senior Occupational Therapist

Results will be published in the near future.

Gastroenterology

3.4.7.24

Are appropriate patients being identified for receiving interferon treatment for Hepatitis C infection? ■ »

Dr Ralph Barry, Consultant

Infection with Hepatitis C gives rise to chronic hepatitis in 80% of cases and rarely resolves spontaneously. Progression can be eradicated with interferon although approximately 50% of patients relapse and others show no response. The specific objective of this audit is to ensure that appropriate patients are being identified and unnecessary treatment prevented. Results will be published in the near future.

Respiratory Medicine

3.4.7.25

Can response times be improved for physiotherapists attending new patients referred to Ward 16 (EMU)? ■ »

Annie Picton

This has been highlighted as an area of concern with regards to the respiratory needs of patients. Data is waiting to be analysed.

PROBLEMS ENCOUNTERED & LESSONS LEARNED

“During 1998/1999 the main problem that the Medical Directorate has experienced is the lack of feedback and dissemination of audit results and a reactionary approach to new audit topics. It has been the case that projects invariably only take place in areas where there is a personal interest in clinical audit. This has been addressed by the formation of a clinical audit strategy group (CASG). This multi-professional group meets on a monthly basis to establish the best forum for disseminating audit results and information. It pro-actively targets areas for audit according to local and national priorities.

Another problem that the directorate has been experiencing is the lack of input from junior doctors. There has been a significantly lower number of audits from Senior House Officers from Medicine than from other directorates. As a measure to address this issue, audit has been included as part of their regular training, and with the support of the consultants it has also been made compulsory for SHOs to actively take part in audit.

A further problem that has become apparent during 1998/1999 is staff moving jobs or leaving during the audit cycle, and projects remaining incomplete. A proposal that will be taken before CASG in April 1999 is that for every audit there are two named participants with an agreement that if the audit lead leaves, the second member of staff will continue the project.”

MENTAL HEALTH

SUMMARY

Number of 1997/8 roll-overs ◀	3
Number of new audits ■	8
Number of re-audits ●	1
Number of ongoing monitoring projects ▶	1
Total number of audits	13
Number of current (i.e. uncompleted) audits ▶	3
Multidisciplinary audits	7/10 (70%)
Interface audits	1/10 (10%)
Audits measuring against or resulting in development of standards or guidelines	9/10 (90%)
Audits involving standards or guidelines which have been/will be developed following consideration of available evidence about clinical effectiveness	3/10 (30%)
Audits which directly involved patients <i>(percentages above do not include 1997/8 roll-overs)</i>	3/10 (30%)
Audits resulting in changes in practice <i>(percentages above include 1997/8 roll-overs, but not 1998/9 'current' projects)</i>	7/10 (70%)
Re-audits confirming improved patient outcomes <i>(percentages above include completed re-audits and ongoing projects only)</i>	0/2 (0%)

EXEMPLAR AUDITS

3.4.8.1

Is local ECT practice in line with recommendations made by the Royal College of Psychiatrists? ●

Dr Paul Birkett, Consultant Psychiatrist

This project was shortlisted for UBHT's 1998/9 'Audit Oscars'

Electroconvulsive Therapy (ECT) is a controversial but nevertheless clinically effective treatment for severe depression and certain other mental health disorders. The Royal College of Psychiatrist's *ECT Handbook* (1995) identifies best practice in this area. A total of 45 local standards were derived from the *Handbook*. These standards relate to the facilities and equipment in the ECT clinic as well as to appropriate anaesthetic cover and the administration of ECT.

The audit broadly confirmed good practice (62% of standards were fully met and a further 13% were partially met), however four specific recommendation were made:

- ECT liaison nurses should be identified for each ward. Their role will be to accompany patients to ECT and to remain with the patient during recovery. Training in this role and in the care of the unconscious patient will be given to staff
- A system should be developed for providing feedback to ECT clinic staff from the ward by using ECT liaison nurses
- A protocol for the systematic monitoring of cognitive impairment during a course of ECT should be introduced
- Local criteria for the use of unilateral or bilateral ECT should be developed to inform prescribing

To date, an ECT liaison nurse job profile has been written and each ward has identified two nurses with ECT responsibilities.

3.4.8.2

Is antabuse being appropriately prescribed in the treatment of alcoholism? ■

Dr Chris Johnstone, Clinical Assistant

Antabuse is a form of aversion therapy used in the treatment of alcoholism. The treatment is clinically effective but potentially dangerous and therefore requires careful monitoring (including LFTs). This audit confirmed that pre-screening standards were being met and that adverse effects and therapeutic outcomes were being properly monitored. Of a total of 33

patients followed-up twelve months after starting antabuse therapy, 67% were either 'dry' or had been discharged, however 21% had returned to drinking (12% unknown).

OTHER PROJECTS

3.4.8.3

How well are Inner City Mental Health Team casenotes maintained? ■

Graham Whitwell & Jenny MacDonald

This audit, which used UKCC standards, highlighted a wide variation in the quality of casenotes. It is hoped full implementation of the national standards will improve matters and regular re-audits will be undertaken.

3.4.8.4

Is S17 Leave Documentation being completed as required? «

Kim Smith, Services Manager

The completion of S17 leave documentation is a statutory requirement before patients held under Sections 2 or 3 of the Mental Health Act can be allowed to leave the hospital grounds. During the period of the audit, 63 S17s were filled in. The completion of 62 (98%) of these forms met legal requirements.

3.4.8.5

How effective has the Inner City Crisis Team (ICCT) been? « »

Damian Taylor, Clinical Psychologist

This in-progress project is an attempt to evaluate the effectiveness of the newly established ICCT by ascertaining the satisfaction of both users and referrers with the service.

3.4.8.6

Are users actively involved in the CPA (Care Programme Approach) process? ■

Martin Hember

This audit confirmed that patients attend CPA meetings and participate in agreeing their care plans, however only 12% (4/33) of patients had been given the appropriate CPA information leaflet.

3.4.8.7

Are adult inpatients beds being used appropriately? «

Dr Bill Jerrom & Dr Chris Bartlett

This project was a response to the 'ASPIC' study. The audit looked at all occupants of adult inpatient beds on a census day in January 1998. The results suggested that the local rate of 'inappropriate placement' is lower than the national average.

3.4.8.8

Are patient allergies and hypersensitivities being recorded in their medical records? ■

Kim Smith, Services Manager

As a result of this audit, an additional method of routinely collecting information about allergies and hypersensitivities has been incorporated into existing information gathering processes – the admission details form completed by ward staff has been amended to include an appropriate field, as has the comparable outpatient record.

3.4.8.9

Can outpatient DNA rates be improved? ■ »

Kim Smith, Services Manager

The outpatient DNA rate for the Mental Health directorate was found to be considerably higher than the Trust average. A project is therefore being undertaken to identify a) reasons for DNAs and b) best practice in reducing DNAs.

3.4.8.10

Are suitable audit mechanisms in place following patient suicides? »

Dr Jonathon Evans, Consultant Psychiatrist

One of the targets set out in *Our Healthier Nation* is to reduce the death rate by suicide by at least a sixth during the coming decade. The directorate of Mental Health has a system in place to ensure that the circumstances surrounding any suicide are audited in detail and that practice is subsequently changed where indicated. The system for obtaining information from the Coroner's Court has recently been improved.

3.4.8.11

Are patients with the highest levels of need being referred for rehabilitation? ■ »

Dr Bill Jerrom

This current audit is a response to an external review of the Assessment & Training Rehabilitation Unit. The profile of patients currently receiving rehabilitation services is being compared with that of patients with high levels of need being cared for by acute services, with a view to establishing appropriate referral criteria for rehabilitation.

3.4.8.12

Are elderly patients who receive depot injections being regularly reviewed? ■

Naomi Roberts, Clinical Psychologist

This audit showed that 82% of elderly patients who live in the community and receive depot injections were reviewed in the twelve months prior to the date of the audit. 64% had a face-to-face review with a doctor. A recommendation that CPNs review prescribing every 3 months is being discussed.

3.4.8.13

Were users satisfied with a pilot Occupational and Art Therapy service established in four hostels for homeless people with mental health problems? ■

Anna Kalin & Peta Roberts

The background to this survey was a request for accessible therapies for homeless people with mental health problems. Both users and hostel staff expressed high levels of satisfaction with the service. A recommendation has been made that this pilot is developed into a permanent service, however a lack of available funding has so far prevented this from happening.

PROBLEMS ENCOUNTERED & LESSONS LEARNED

"Clinical audit projects this year have started to make a real impact on services. For example, we now have a mechanism in place to feed back the findings of unexpected death audits, and the ECT audit has led to a number of service improvements. We continue to experience problems in engaging junior medical staff in audit, except in the care of the elderly specialism. Another continuing problem is fully completing the audit cycle for all projects.

We have introduced Audience Feedback Forms for audit presentations, and hope in the coming year to use a more systematic approach to topic selection.

Moving into a Specialist Mental Health Trust from April 1999 has emphasised the strengths of the system now in place for organising audit in UBHT".

OBSTETRICS, GYNAECOLOGY & EAR NOSE AND THROAT
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SUMMARY

Number of 1997/8 roll-overs ◀	8
Number of new audits ■	8
Number of re-audits ●	1
Number of ongoing monitoring projects ▶	1
Total number of audits	18
Number of current (i.e. uncompleted) audits ▶	8
Multidisciplinary audits	3/10 (30%)
Interface audits	0/10 (0%)
Audits measuring against or resulting in development of standards or guidelines	9/10 (90%)
Audits involving standards or guidelines which have been/will be developed following consideration of available evidence about clinical effectiveness	7/10 (70%)
Audits which directly involved patients <i>(percentages above do not include 1997/8 roll-overs)</i>	0/10 (0%)
Audits resulting in changes in practice <i>(percentages above include 1997/8 roll-overs, but not 1998/9 'current' projects)</i>	5/10 (50%)
Re-audits confirming improved patient outcomes <i>(percentages above include completed re-audits and ongoing projects only)</i>	1/2 (50%)

EXEMPLAR AUDITS**3.4.9.1****Is a human chorionic gonadotropin level (hCG) of 1000 miu/ml a reasonable threshold for diagnosing ectopic pregnancy in the absence of ultrasound findings of intrauterine pregnancy? ■***Karen Sohan, Senior Registrar***Gynaecology**

The morbidity and mortality of ectopic pregnancy are directly related to the time interval between the onset of symptoms and the start of treatment. Literature suggests that 75-90% of ectopic pregnancies can be identified from suggestive features on an ultrasound examination. Literature also suggests that 15% of normal pregnancies appear abnormal when serial hCG is used. This project was undertaken in order to support the development of a local protocol.

55% (6/11) had findings suggestive of an ectopic pregnancy. 38% (5/13) of the live pregnancies did not follow the expected pattern.

It has subsequently been agreed that laparoscopy should not be performed on the first visit unless the findings are highly suggestive of ectopic pregnancy even if pain is a complaint. This practice will prevent unnecessary laparoscopies in patients with early intrauterine pregnancy and complete miscarriage. A local protocol setting out the principle of ultrasound scan, serial hCGs and selective repeat ultrasound scans will be included in staff induction packs.

3.4.9.2**Are an appropriate proportion of ectopic pregnancies being treated laparoscopically? ◀***Lisa Joels***Gynaecology**

Laparoscopic treatment of ectopic pregnancy is associated with fewer post-operative complications and shorter recovery periods than open surgery. Preservation of fertility is also as good if not better than with open surgery. Based on Royal College of Obstetricians and Gynaecologists' guidelines, a local standard states that 80% of ectopics should be treated

laparoscopically. In 1995 & 1996 the rates were 16.5% and 23% respectively. Between August and October 1997 the figure improved was 22.7%, however this still fell far short of the target 80%. The following changes to practice have therefore been implemented:

- Development of a simulation room for practical training. Room is now in use.
- Regular training sessions shared between Southmead and UBHT have been set up and are ongoing.
- Protocols and guidelines have been revised and are now given out to all new medical staff and also displayed in more relevant areas
- Doctors' rota has been revised to provide more supervision by appropriately trained staff during emergency lists. Appropriately trained senior medical staff are not available to supervise these procedures during the evening gynae emergency lists therefore changing the rota will assure more ectopics are treated laparoscopically.

OTHER PROJECTS

Obstetrics

3.4.9.3

What is the quality of note-keeping in Obstetrics? ●

Nicky Symes, Midwife

Record-keeping standards based on UKCC and Medical Defence Union recommendations had been revised following an audit in 1997, however a re-audit revealed that they were being poorly adhered to. A copy of the standards has been sent to all relevant hospital personnel and is now included in staff induction packs. Further re-audits are now carried out regularly to ensure improved quality of record keeping.

3.4.9.4

How effective has Team Midwifery been? ◀ ▶

Jean Butler, Granby House Clinic

This project which contained elements of both audit and research, looked at clinical outcomes relating to Team Midwifery and measured adherence to standards contained in the 1993 Changing Childbirth report. These standards stated that a) at least 30% of women should have a midwife as the lead professional, b) at least 75% of women should know the midwife who cares for them in labour and c) at least 30% of women delivered in a maternity unit should be admitted under the management of a midwife. Team Midwifery successfully achieved each of these standards, with better adherence than non-team midwifery. Recommendations have yet to be agreed.

3.4.9.5

Are we following Royal College standards on ventouse delivery? ■ ▶

Willem Verproest, Senior Registrar

Ventouse delivery has been shown to be the preferred first choice for operative delivery. This audit is being undertaken to ensure we are following RCOG standards. Data is currently being collected.

3.4.9.6

Are we adhering to proposed guidelines for anti-D immunoglobulin usage? ■ ▶

Tony Kelly, Senior Registrar

Without prophylaxis 1 in 6 Rhesus D Negative women who are delivered of a Rhesus Positive infant will develop anti-D as a result of feto-maternal haemorrhage. The aim of this project is to ensure a) correct screening for antibodies, diagnosis of sensitising events and use of Kleihans and b) administration of anti-D to early pregnancy bleeding, ectopics and VTOPs. Data is currently being collected.

3.4.9.7

What lessons have been learned from monthly peer review of a) fetal death or stillbirth after 13 weeks gestation and b) neonatal deaths? »

Imogen Montague

This monthly peer review meeting involves obstetricians, midwives, neonatologists, nurses, radiologists, pathologists, paediatricians, geneticists, and management.

3.4.9.8

Can Lower Segment Caesarean Section rates be reduced? «

Miss Pippa Kyle, Consultant

This audit was prompted by local concern about perceived high numbers of LSCSs, however results indicated that practice was in line with national norms.

3.4.9.9

Why is the frequency of induced labour increasing? « »

Miss Pippa Kyle, Consultant

This audit is an attempt to identify reasons for the increased number of inductions. Specifically it seeks to examine the gap in time between planning induction and the actual delivery, and to produce local practice guidelines. Data is currently being analysed.

3.4.9.10

Can we establish consensus guidelines for the management of substance-using mothers? « »

Nick Elkington, Senior Registrar

The aim of this project is to produce guidelines for both antenatal and post-natal care, and to establish stable support arrangements for mother and child in the community. Data is being collected until the end of June 1999.

3.4.9.11

Are cases of cleft lip and palate being detected antenatally? ■ »

Karen Sohan

Cleft lip and palate is a fetal anomaly which may be corrected surgically. Picking up cases by routine ultrasound enables appropriate counselling of parents. Data is currently being analysed.

3.4.9.12

Would a policy of universal administration of serial antenatal corticosteroids to women with multiple pregnancies be justified? ■ »

Deidre Murphy, Senior Registrar

Published evidence suggests that the use of serial antenatal corticosteroids in likely pre-term deliveries (22-34 weeks) is effective in reducing the likelihood of respiratory distress syndrome in neonates. There are however associated risks to mother and fetuses and treatment is expensive. Currently between 15-20% of twin pregnancies receive serial antenatal corticosteroids and this current project is being undertaken to determine whether a policy of universal administration to all women with multiple pregnancies would be justified.

Gynaecology

3.4.9.13

Are late discharge standards being met in day case laparoscopy? ■

Babs Williams, Associate General Manager

The local standard states that 80% of day unit patients should be discharged by 17:00. Unfortunately this audit was fatally flawed by poor data collection which could not be rectified.

3.4.9.14

Do local antibiotic prescribing regimes for hysterectomy patients follow BNF recommendations? «

Barbara Wilson, Pharmacy

This project has been 'on hold' due to the project lead taking a career break. Data analysis will be undertaken shortly.

Family Planning

3.4.9.15

What is the rate of complications amongst patients having suction terminations? ■ ▶

Dr Louise Kane, Family Planning Clinic

This audit was prompted by concern about the perceived level of complications (retained products, perforation, failed abortion, infection) following STOPs under GA performed at St Michael's Hospital. Data is currently being collected and will be compared with national complication rates.

ENT

3.4.9.16

Are patients being referred to ENT Casualty Officers appropriately? ◀ ▶

Dr Rani Seehra

This audit was prompted by concerns about the number and type of referrals to SHOs. The aim was to develop agreed criteria for emergency referrals to ENT Casualty Officers. The results showed no particular trends in referral patterns and unfortunately the departure of the project lead has delayed the process of agreeing acceptable referral criteria.

3.4.9.17

Does fine needle aspiration technique need to be improved? ■

P G Bicknell, ENT Consultant

This audit was prompted by concerns over the number of times specimens from FNAs proved insufficient. It was thought that this problem was due to surgical technique. Results from Cytopathology showed that 50% of FNAs were insufficient. All ENT medical staff have subsequently received re-training on FNA surgical technique and have been encouraged to be more specific on request forms about the area from which the specimen is obtained. A re-audit will be carried out later in 1999.

3.4.9.18

Has practice improved in the Aural Treatment Clinic? ◀

Abad Toma

The original audit in 1993/4 identified a) a lack of patient information, b) the fact that records of patients' attendance and treatment were inadequate and c) a lack of SHO involvement in the clinic. The re-audit identified improvements in the first two of these areas, whilst SHO involvement will begin when the service amalgamates with Southmead later in 1999.

PROBLEMS ENCOUNTERED & LESSONS LEARNED

- "There is a need for more multi-disciplinary audit to encourage changes to practice as a result of staff groups working together
- More control is required over the written audit report/summary so that it is presented in language that is easy to understand
- Six month employment spans for SHOs is an ongoing problem for continuity of audit projects and deadlines"

ALSO SEE...

Anaesthesia – "Are patients experiencing headache after obstetric regional anaesthesia?" (3.4.1.3); "Are patients satisfied with obstetric epidural pain relief?" (3.4.1.6); "Can recovery times at St Michael's be reduced?" (3.4.1.7); "What problems are being experienced with regional anaesthesia for caesarian section?" (3.4.1.9); "How successful is newly standardised infusion mixture in post-operative epidural analgesia for gynaecology patients?" (3.4.1.10)

OCCUPATIONAL HEALTH

SUMMARY

Number of 1997/8 roll-overs ◀	0
Number of new audits ■	1
Number of re-audits ●	0
Number of ongoing monitoring projects ▶	3
Total number of audits	4
Number of current (i.e. uncompleted) audits ▶	1
Multidisciplinary audits	4/4 (100%)
Interface audits	3/4 (75%)
Audits measuring against or resulting in development of standards or guidelines	4/4 (100%)
Audits involving standards or guidelines which have been/will be developed following consideration of available evidence about clinical effectiveness	1/4 (25%)
Audits which directly involved patients <i>(percentages above do not include 1997/8 roll-overs)</i>	3/4 (75%)
Audits resulting in changes in practice <i>(percentages above include 1997/8 roll-overs, but not 1998/9 'current' projects)</i>	1/3 (33%)
Re-audits confirming improved patient outcomes <i>(percentages above include completed re-audits and ongoing projects only)</i>	2/2 (100%)

EXEMPLAR AUDITS

3.4.10.1

How long does it take to see an Occupational Health doctor? ▶

Carole Brooke, Administration Manager

A local standard has been agreed that staff (including external contracts) should wait no more than 10 working days between referral to an OH doctor and being seen (this was the result of background work undertaken by the department at the request of the NHSE). The standard is currently being met, however OH continues to receive some referrals who would more appropriately have been seen by a nurse or physiotherapist. A direct referral system to physiotherapists and OH nurses has therefore been initiated.

3.4.10.2

What interventions do UBHT staff need in order to combat stress? ■ ▶

Dr P Bennett, Head of Clinical Health Psychology

This current audit is seeking to identify levels of stress amongst UBHT staff (using formal psychometric measures). The results will provide an indication of need which can be used to direct appropriate interventions.

OTHER PROJECTS

3.4.10.3

Are we adhering to agreed local guidelines for the management of needlestick injuries? ▶

Sister Edwina Latimer

The Government requires that UBHT has effective local guidelines to ensure that staff exposed to needlestick injuries receive post-exposure prophylaxis. Guidelines have been produced and data collection for this ongoing project began in September 1998.

3.4.10.4

Is the Hepatitis B status of staff who regularly carry out exposure-prone procedures being adequately monitored? »

Sister Edwina Latimer

The trust is required to produce six monthly statistics on Hep B status - see HS(93) G40. Any identified areas of concern are fed back to Occupational Health, the Director of Human Resources and Avon Health Authority. In 1998/9 compliance in most directorates has improved.

ONCOLOGY

SUMMARY

Number of 1997/8 roll-overs ◀	3
Number of new audits ■	5
Number of re-audits ●	0
Number of ongoing monitoring projects ▶	0
Total number of audits	8
Number of current (i.e. uncompleted) audits ▶	1
Multidisciplinary audits/	4/5 (80%)
Interface audits	0/5 (0%)
Audits measuring against or resulting in development of standards or guidelines	4/5 (80%)
Audits involving standards or guidelines which have been/will be developed following consideration of available evidence about clinical effectiveness	4/5 (80%)
Audits which directly involved patients <i>(percentages above do not include 1997/8 roll-overs)</i>	0/5 (0%)
Audits resulting in changes in practice <i>(percentages above include 1997/8 roll-overs, but not 1998/9 'current' projects)</i>	3/7 (43%)
Re-audits confirming improved patient outcomes <i>(percentages above include completed re-audits and ongoing projects only)</i>	0/0 (0%)

EXEMPLAR AUDITS

3.4.11.1

Are gastroprotection agents being appropriately prescribed in patients taking Nonsteroidal Anti-inflammatory Drugs (NSAIDs)? ◀

Dr Hawkins, Senior Registrar

This project was shortlisted for UBHT's 1998/9 'Audit Oscars'

Use of NSAIDs is associated with a risk a gastroduodenal toxicity. NSAIDs cause approximately 12,000 peptic ulcer complications and 1,200 ulcer deaths per annum in the UK. Co-prescription of gastroprotective agents, such as misoprostil, significantly reduce the risk of GI toxicity.

The objectives of this project were as follows:

- To ensure that patients who are at risk of GI toxicity are recognised and given prophylactic gastroprotection
- To ensure that other patients do not receive gastroprotection unnecessarily
- To ensure that each patient's risk factors are considered and documented in the hospital notes

The audit looked at the notes of 200 patients with advanced solid malignancy who had been admitted to an oncology ward for at least one night during 1997. The results can be summarised as follows:

- 36% (72/200) of patients were given NSAIDs
- 3 patients were known to have indigestion before being started on NSAIDs
- 69% of these (50/72) had been started pre-admission
- Past history of PUD was recorded in only one patient's notes
- 50% (36/72) of patients on NSAIDs were not given gastroprotection, including 6 patients in the highest risk category
- 11% (8/72) had gastric side-effects ranging from indigestion to fatal perforation
- Where gastroprotection was prescribed, this was not always appropriate

The following action plan is to be implemented and the topic re-audited:

- Consideration to be given to additional risk factors for GI problems with NSAIDs
- Standard dose H2 blocker not to be used prophylactically for high risk patients – use Misoprostol or PPI instead
- Gastroprotective prophylaxis not to be given to patients at low risk
- A check list for prescribing NSAIDs and gastroprotection to be circulated

3.4.11.2

How efficacious has cool capping been in preventing hair loss from anthracycline chemotherapy for breast cancer? ◀

Dr Parkinson & Dr Bahl, Registrars

Loss of hair is a common unpleasant side effect of anthracycline chemotherapy. Published evidence about the efficacy of cool capping in preventing hair loss in these circumstances is contradictory, suggesting a success rate of anything between 9 and 90%.

A review of local practice during the year June 1997 – May 1998 indicated a 44% success rate (i.e. a substantial minority of patients). On the strength of this evidence it was agreed to continue with existing practice of informing anthracycline patients about the benefits and limitations of cool capping and offering this facility to those women who wanted it. It was felt that other patient groups would also benefit from this facility but funding was not available at the present time.

OTHER PROJECTS

3.4.11.3

How frequently are syringe drivers used and why? ◀

Helen Morgan, Clinical Nurse Specialist

The use of portable battery-operated syringe drivers is well established in the palliative care setting, to deliver subcutaneous medication to those patients unable to take drugs by mouth. This project looked at the use of syringe drivers in a number of different clinical settings within the same health district. The results indicated that in some settings syringe drivers were being inappropriately used for the purposes of pain control. The incidence of written records was low particularly where changes had been made to syringe driver medication. Results are being fed back to the individual settings who will action and re-audit as appropriate to location.

3.4.11.4

Are patients with anal cancer receiving optimum treatment? ■

Dr Stephen Falk

The majority of patients with anal cancer are seen by Dr Falk. The survival rate of these patients was found to be comparable with available international data.

3.4.11.5

What are radiotherapy waiting times for breast cancer patients from Weston General Hospital? ■

Dr Marjorie Tomlinson

Avon & Somerset Cancer Services Standards state that treatment of breast cancer patients should commence within 28 days of the patient being seen by the Oncologist. This project looked at waiting times in one clinic. The standard was met in 43% of cases. Unfortunately the high volume of patients and limited resources make it difficult to foresee how waiting times can be improved in the short term.

3.4.11.6

Can radiotherapy waiting times be reduced? ■ ▶

Kate Westbrook, Senior Superintendent Radiographer

Based on Royal College standards, this audit seeks to identify points in the radiotherapy patient's treatment where avoidable delays may be occurring. Data is currently being analysed.

3.4.11.7

Are breast cancer patients requiring adjuvant radiotherapy or chemotherapy receiving this treatment in a timely fashion? ■

Dr Chris Price

The benefits of adjuvant therapy following surgery for early breast cancer are accepted. Delays in treatment beyond 12 weeks are known to be detrimental. A Royal College of Radiologists standard states that the time from patients having surgery to starting oncological treatment should be no more than 4 weeks. Furthermore a locally agreed standard states that the time from patients being seen by an oncologist to starting treatment should also be no more than 4 weeks. Results indicated that neither standard is currently being met. Delays were found to be cumulative. The current booking system is inherently inflexible and will need to be re-engineered (particularly for radiotherapy) if the standards are to be met in the future.

3.4.11.8

Are survival rates for glioblastoma patients in line with national norms? ■

Dr Tomlinson

Glioblastoma is a type of brain tumour. Survival rates for the various patient groups (different stages of tumour) were found to be similar to other published studies. The recommendation that patients in the poorest prognostic groups should either receive no radiotherapy or a short palliative course due to the side effects of treatment and short survival time, is currently being considered.

PROBLEMS ENCOUNTERED & LESSONS LEARNED

“This has been an important year for audit in Oncology. The work of the Avon Cancer Centre Site Specialist Teams and the Regional Cancer Centre ‘Expert Tumour Panels’ have resulted in the setting of local standards for cancer management based on Calman-Hine principles. Many of these have led to audit being initiated in a multi-disciplinary context with other directorates and other hospitals. Trust centred audit has also continued to develop but the lack of staff and funding for data management has held back work in many of the key areas of interest and concern.”

OPHTHALMOLOGY

SUMMARY

Number of 1997/8 roll-overs ◀	0
Number of new audits ■	5
Number of re-audits ●	1
Number of ongoing monitoring projects ▶	2
Total number of audits	8
Number of current (i.e. uncompleted) audits ▶	2
Multidisciplinary audits	2/8 (25%)
Interface audits	0/8 (0%)
Audits measuring against or resulting in development of standards or guidelines	3/8 (38%)
Audits involving standards or guidelines which have been/will be developed following consideration of available evidence about clinical effectiveness	2/8 (25%)
Audits which directly involved patients <i>(percentages above do not include 1997/8 roll-overs)</i>	0/8 (0%)
Audits resulting in changes in practice <i>(percentages above include 1997/8 roll-overs, but not 1998/9 'current' projects)</i>	0/5 (0%)
Re-audits confirming improved patient outcomes <i>(percentages above include completed re-audits and ongoing projects only)</i>	0/3 (0%)

EXEMPLAR AUDITS

3.4.12.1

What is the incidence of cancelled appointments in different areas of BEH? ■

Bill McDermott, Associate General Manager

A particular problem with cancellations was noted in the Outpatient Department. There were various reasons for cancellations. The hospital is now moving away from pre-booking patients towards a 'pending' system where patients are given an approximate date for their appointment and told the exact date and time nearer the occasion.

3.4.12.2

Are patients satisfied with 'one-stop' cataract surgery? ■

Mr Jeremy Diamond, Consultant

The one-stop service means that patients are seen, where appropriate offered surgery, have their operation and are discharged in one visit. The more traditional system involves separate listing, pre-assessment and surgery visits. This survey looked at 40 patients from each system. All patients rated the quality of their surgery as 'good' or 'excellent'. Significantly patients from the one-stop clinic indicated that they had not felt under pressure to agree to their operation, given the limited time they had in order to reach a decision. BEH continues to offer one-stop surgery to suitable patients.

CONTRACTED AUDIT

3.4.12.3

How effective and efficient is the service are we providing to diabetic patients? ■ ▶

Richard Markham, Consultant Ophthalmologist

Diabetic retinopathy remains a major cause of visual impairment and blindness. There is international consensus that effective screening and treatment of eye disease should have high priority in the health care of people with diabetes and that this can best be achieved by an integrated, equitable population based screening strategy. In March 1999 Avon Health Authority published a set of standards for improving screening. An audit using a number of

these standards is currently being planned at BEH. At this stage it is envisaged that the project will focus on a) the appropriateness of referrals diabetic retinopathy referrals to BEH, b) the length of time that patients wait to be seen, c) the quality of information provided by referrers and d) the outcome of treatment.

OTHER PROJECTS

3.4.12.4

What is the local rate of post-operative endophthalmitis? »

Dr Roland Ling, SHO

Endophthalmitis is a sight-threatening complication that very occasionally results from eye surgery. An audit of the year August 1997 – July 1998 showed that the incidence of endophthalmitis was 0.35%. This figure compares favourably with international norms (0.5%) and represents an improvement on the previous twelve month period (0.54%).

3.4.12.5

Have lessons been learned from regular review of surgical complications? »

Craig Burnett, SHO

In 1998/9 39 genuine surgical complications were identified. Complications are examined every month and then formally reviewed on an annual basis.

3.4.12.6

How effective and efficient are cataract surgery arrangements at BEH? ●

Mr J Pandit

Cataract surgery is the most frequently performed operation at BEH and is undertaken by all surgeons. This audit involved collecting data prospectively over a two week period. Results were compared to those from the previous year. Local anaesthetic day-case phaco operations with same-day discharge are now the norm.

3.4.12.7

How does local practice compare with national standards for trabeculectomy? ■ ▶

Andy Frost, Registrar

This current audit will assess surgical techniques, outcomes and complications of trabeculectomy. The project has been adapted from the National Audit of Trabeculectomy.

3.4.12.8

Are we providing a quality cost-effective paediatric optometric service in the community? ■ ▶

Rosemary Lumb, Optometrist

This project was a response to local concern that there were no standards in this area of practice. The objectives of this current audit are a) to ensure referrals made to optometrists in clinics in the Bristol area are appropriate (from GP's, health visitors, school nurses or community optometrists), b) to ensure children are not referred on unnecessarily to BEH, c) to ensure children over 5 years of age with purely refractive problems are discharged and d) to show the service is cost effective. There is also pressure for this service to be performed in the community – standards set after this audit will therefore be passed to the community optometrists if they take over part of the service.

PROBLEMS ENCOUNTERED & LESSONS LEARNED

“Within Ophthalmology there are very few accepted standards and ‘best practice’ is not easy to define. Consultants at BEH are super-specialised and consequently have relatively little input into each other’s audits. Audit has therefore tended to concentrate on the three areas common to all surgeons – cataracts, squints and trabeculectomy. The Royal College of Ophthalmologists is due to publish standards in each of these key areas in the near future. The new audit facilitator post will help to co-ordinate audit activity and encourage multi-professional audit. SHOs will in future be asked to audit and then re-audit a topic during their time at the hospital.”

ALSO SEE...

Anaesthesia – “What is the incidence of post-operative nausea and vomiting within 48 hours post strabismus surgery?” (3.4.1.8)

PATHOLOGY

SUMMARY

Number of 1997/8 roll-overs ◀	0
Number of new audits ■	14
Number of re-audits ●	4
Number of ongoing monitoring projects ▶▶	7
Total number of audits	20
Number of current (i.e. uncompleted) audits ▶	2
Multidisciplinary audits	10/20 (50%)
Interface audits	1/20 (5%)
Audits measuring against or resulting in development of standards or guidelines	16/20 (80%)
Audits involving standards or guidelines which have been/will be developed following consideration of available evidence about clinical effectiveness	12/20 (60%)
Audits which directly involved patients <i>(percentages above do <u>not</u> include 1997/8 roll-overs)</i>	0/20 (-%)
Audits resulting in changes in practice <i>(percentages above include 1997/8 roll-overs, but not 1998/9 'current' projects)</i>	12/18 (67%)
Re-audits confirming improved patient outcomes <i>(percentages above include completed re-audits and ongoing projects only)</i>	0/10 (-%)

EXEMPLAR AUDITS

3.4.13.1

Can we reduce inappropriate requesting of thyroid function tests (TFTs) on emergency admission through A&E by running an on-line questionnaire as an educational initiative at the point when doctors are looking up pathology results? ●

Dr David Stansbie, Consultant Chemical Pathologist

Chemical Pathology

This project took second prize at UBHT's 1998/9 'Audit Oscars'

There has been a substantial increase in out-of-hours TFT requesting (70% increase in the last two years), whilst emergency admissions through BRI A&E have remained essentially static. TFT is a relatively complex and expensive test, and patients are often discharged before results are available. It is well established that hospitalised or ill patients may be biochemically abnormal, whilst clinically euthyroid. Consequently TFTs should only be requested where there are clinical grounds to suspect thyroid disease, rather than used as a screening test upon admission.

The aim of the project was to influence the requesting of TFTs from A&E in order to:

- 1) reduce the adverse outcomes associated with the over-investigation of transient abnormal TFTs in ill but clinically euthyroid patients
- 2) reduce costs to the laboratory

Standards:

Junior doctors should be aware of the limitations of TFTs, as tested by an on-line questionnaire. *Specifically, that in adult hospitalised patients;*

Question 1) 15-20% of patients have abnormal TFTs

Question 2) in which approximately 1/3 is due to an increased TSH, and 2/3 due to a decreased TSH

Question 3) and that when TFTs are abnormal, it is due to true thyroid disease in <5% of cases

Results:

- 1) The anonymous online questionnaire was active over 5 days and 162 individual entries were logged.
- 2) The average score for the 7-question questionnaire was 2.4, with only 2 entries (1.2%) scoring a perfect score of 7 correct answers. The on-line questionnaire gave immediate feedback, including referring to the referenced article.
- 3) Of the three clinical questions defined as standards;
 - Question 1)** 20% gave the correct answer
 - Question 2)** 33% gave the correct answer
 - Question 3)** 38% gave the correct answer

- 4) The results were fed back to junior doctors at a presentation given in February 1998, held in the Jenner Centre. The prize of a bottle of wine for the highest score (decided by on-line tiebreaker) was presented to an SHO in the Directorate of Medicine.
- 5) During the 3 months immediately following the Audit Quiz, a 50% reduction in requests for TFT upon admission via BRI A&E was observed.
- 6) In February 1998, a re-audit of TFT requests over the preceding 12 months suggest that a partial *Hawthorne Effect* was in place, as requests for TFTs had increased from the immediate post-audit period, although not back to the levels of the pre-audit period. Currently, TFT requests are reduced by 25%.

Recommendations / changes in practice:

- 1) Consultants in the Directorate of Medicine (for whom most TFTs are requested) agreed to amend admission protocols and to emphasise to their junior staff the importance of requesting TFTs when there was clinical evidence to suggest possible thyroid disease, rather than as a general admission profile
- 2) Pathology agreed to monitor the effectiveness of this audit by reviewing out of hours TFT requests, and to present this as a re-audit

Benefits of the audit:

- 1) We have reduced inappropriate requests for TFTs by approximately 25%.
- 2) Linking education in the use of pathology results to the everyday practice of accessing results is highly effective audit tool, particularly when presented in the form of a prize quiz.
- 3) This audit has demonstrated that this method is an appropriate mechanism to test and impart knowledge. The developing UBHT Intranet may be an ideal technical platform for such an educational initiative in the future.
- 4) Audit explicitly delivered through an educational intervention can change clinical practice.

Evidence:

- 1) NHSE (Anglia & Oxford R&D). Signs and symptoms predict thyroid disease. *Bandolier* 1997;46(December):6-7.
- 2) Nicoloff JT, Spencer CA. Clinical review 12: The use and misuse of the sensitive thyrotropin assays. *J Clin Endocrinol Metab* 1990;71(3):553-8.

This audit involved doctors across UBHT - particularly junior medical staff – who responded to the on-line questionnaire.

3.4.13.2

What is the most effective strategy for serological investigation of coeliac disease? ■

Ms Ann Bowron, Clinical Biochemist

Chemical Pathology

The aim of this project was to investigate the diagnostic performance of anti-gliadin antibodies (AGA) and anti-endomysial antibodies (AEA) used to select patients for small intestine biopsy for confirmation of coeliac disease and, in light of the relatively high cost of AEA analysis, to establish a cost-effective investigative strategy.

Serology results from all patients investigated for coeliac disease at Bristol Children's Hospital and Bristol Royal Infirmary over a three year period (771 children, 493 adults) were compared with small intestine histology. IgG-AGA and IgA-AGA were measured by enzyme-linked immunosorbent assay. AEA was measured by immunofluorescence using monkey oesophagus as substrate. Diagnostic performance (sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV)) of the serological markers were calculated.

Diagnostic performance of the tests were as follows: AGA sensitivity 84%, specificity 97%, PPV 55%, NPV 99%; AEA sensitivity 88%, specificity 100%, PPV 97%, NPV 99%.

The results of the audit indicate that AGA has a very high NPV and a similar sensitivity to AEA; it is therefore suitable as a first line test to exclude coeliac disease. AEA has a high specificity and is suitable as a follow-up test when AGA is positive. We propose a step-wise approach to coeliac disease investigation with the caveat that when clinical suspicion is high, both tests will be performed, thus maximising cost effectiveness.

This project involved Chemical Pathologists, Histopathologists, MLSOs, Clinical Biochemist, Gastroenterologists and audit staff. It has been accepted for publication in the *Journal of Clinical Pathology* (1999).

NATIONAL AUDIT

3.4.13.3

Which ancillary tests are helpful in establishing cause of sudden death in infants? »

Prof. Jem Berry, Consultant Histopathologist

Histopathology

Local results are due to be presented shortly.

REGIONAL AUDIT

3.4.13.4

Are we following best practice in the diagnosis of MRSA? ■

Mr David Cook, Biomedical Scientist

Histopathology

This region-wide audit looked at screening culture methods used in 14 different laboratories across the South-West. Consensus about best practice was subsequently achieved - the methods currently employed by Bristol Public Health Laboratory Service were found to be comparable. Other laboratories at variance with best practice are to consider changing practice.

OTHER PROJECTS

Chemical Pathology

3.4.13.5

What impact has the introduction of two Olympus analysers had on the performance of the laboratory? ●

Ken Jones, Laboratory Manager

Two Olympus analysers now deal with approximately 80% of routine biomedical blood tests. As a result, 97% of results are now turned around within two hours (previous audit=94%, standard=90%).

3.4.13.6

What influence has the pathology 'blunder' reporting system had on the quality of the service? »

Ken Jones, Laboratory Manager

During 1998/9, 16 major 'blunders' were recorded and investigated, out of an annual workload of approximately 350,000 samples. This reporting system regularly leads to improvements in practice. For example, a transcription error was identified as the source of a mistake in the reporting of a urine drug screen. The method of entering results into the computer has subsequently been altered so that similar errors can no longer occur.

3.4.13.7

Is the fluoride concentration currently used in blood alcohol tests at post mortem effective? ■

David Ball, Biomedical Scientist

Fluoride is used in blood alcohol tests to prevent degradation of samples. As a result of this audit it was concluded that the current fluoride preservative was too dilute at 0.25% - there was a small possibility that it may have led to underestimation of blood alcohol in some deceased patients - and has since been increased to 2.0%. The Histology department have been provided with specific tubes for the collection of blood alcohol samples with increased fluoride and it has been agreed that all samples should be stored for 12 months before disposal in case further checks are required.

3.4.13.8

What lessons have been learned from external quality assurance schemes? »

Ken Jones, Laboratory Manager

The analysis of unknown samples provided by external quality assurance schemes is both an important measure of analytical quality and a formal CPA accreditation standard. EQA results throughout the year were better than average for most analytes, however one exception was Beta-2 microglobulin. The problem was traced to the supply of poor materials, and as the EQA provider could not recommend a more reliable source of reagents, the decision was taken to refer all such tests to the laboratory of the EQA provider as a national reference laboratory.

3.4.13.9

Do turnaround times for chemical pathology tests meet local standards? ■

Ken Jones, Laboratory Manager

Agreed standards for turnaround times range from 1 day for electrolytes to 21 days for vitamins A & E. Overall compliance with standards was in excess of 98%

3.4.13.10

Does current use of laboratory markers of myocardial damage conform to best practice? ■

Dr David Stansbie, Consultant Chemical Pathological

Changes in biochemical markers are part of the WHO criteria for the diagnosis of myocardial infarction. Current practice is to measure total creatinine kinase (CK) and provide a measure of the CKMB isoenzyme in difficult cases. This audit compared the effectiveness of measuring CKMB with troponin-T. As a result, troponin-T is now being used as a second line marker – a change in laboratory practice, bringing the local service into line with regional guidelines on the provision of troponin measurements.

3.4.13.11

Can a departmental standard be agreed for the measurement of glycated haemoglobin (HbA1c) in diabetics with haemoglobinopathies? ■

Dr Andrew Day, Consultant Chemical Pathologist

HbA1c is an established method of measuring glycaemic control in diabetic care. The validity of these results in patients with haemoglobinopathies has been questioned in view of their abnormal haemoglobin structure and turnover rate. In December 1998, 14 of the 998 HbA1c tests that were done contained abnormal haemoglobins. These HbA1c results were reported with an additional comment regarding the validity of the reference ranges. It has subsequently been agreed that it is inappropriate to report HbA1c in patients with haemoglobinopathies as there is doubt as to its validity. Any patient with a low HbA1c should have a comment made that this may reflect increased red cell turnover. This project has reduced the risk of reporting results that do not accurately reflect the true glycaemic control of the patient and increased surveillance of patients with potentially falsely low results.

3.4.13.12

How does the performance of the allergy testing service compare with Royal College Guidelines? ■

June Morgan, Biomedical Scientist

Allergy testing is an important area in paediatrics and adult dermatology. It requires an appropriate range of biochemical and immunological investigations. This audit showed that all tests that are required for a good laboratory service are available either on site or from a reference laboratory. Between January and June 1998 294 requests for RAST tests were made for 28 allergens. Pre-screening of these samples with mixed allergen panels was not cost effective.

3.4.13.13

Are IGF-1 and IGF-BP3 useful predictors of growth hormone deficiency in children? ■

Dr Paul Thomas, Clinical Scientist

A small proportion of children with short stature will be growth hormone deficient. Dynamic function tests are inappropriate in all children and the measurement of IGF-1 (insulin like

growth factor-1) and IGF-BP3 (IGF binding protein-3) has been suggested as a suitable screening test to select patients for further investigation. 79 paired IGF-1 and IGF-BP3 were carried out. Results were low (<-1.5 SD) in 10 patients. Correlation of results with subsequent provocation testing did not show the tests were useful predictors of GH insufficiency in this cohort. Further analysis is being undertaken to try and develop a protocol to identify which patient groups would benefit from these tests.

Histopathology

3.4.13.14

Has the introduction of a standard histopathology reporting form for breast carcinoma had a positive effect? ●

Richard Daly, Demonstrator

This project looked at the reporting of breast cancer excision specimens, following the introduction of a new histopathology reporting system. The first quarter of 1998 was compared to performance in the first quarter of 1996.

3.4.13.15

Have there been any changes in patterns of post-mortems? »

Dr Ed Sheffield, Consultant Histopathologist

Records for 1998 indicated that whilst the absolute number of post-mortems continues to rise, the number of hospital post-mortems (performed at the request of doctors and with the consent of relatives, as opposed to under the direction of the coroner) continues to fall. This has important implications for the education process. 30% of all post-mortems are performed on patients who die of cardio-vascular disease, reflecting the high incidence of this disease in the community.

3.4.13.16

Does pathology reporting for Colorectal Cancer comply with Calman-Hine standards? »

Dr Morgan Moorghen, Consultant Histopathologist

This ongoing audit is being developed in close liaison with the Directorate of Surgery (also see 3.1.2).

3.4.13.17

How long is it taking to process routine histology? »

Mr Geoff Roberts, Laboratory Manager & Senior Chief MLSO

Turnaround times from receipt of sample to release of report are a prime quality indicator for a histopathology laboratory. Overlong delays can lead to delays in further treatment or discharge, with continued anxiety to the patient. Of 522 cases reviewed during June 1998, 93% met the turnaround standard of 3 working days – an improvement upon the previous audit in 1996 and in excess of the 90% target.

3.4.13.18

How useful is skin immunofluorescence as a technique? ■ ▶

Dr Chris Collins, Consultant Histopathologist

This audit has been undertaken with a view to establishing local practice guidelines. Results are currently awaiting presentation.

Microbiology

3.4.13.19

Are we complying with CPA standards for Bacteriology? ● ▶

Mrs Jacki Watts, Chief MLSO

CPA accreditation is the recognised peer-review accreditation for pathology laboratories in the UK. Bacteriology (based within Pathology at the BRI but provided as part of the Public Health Laboratory Service) is currently reviewing its compliance with CPA standards. Data collection has recently commenced.

3.4.13.20

How long is it taking to process routine histology? »

Mr Dave Cook, Chief MLSO

Turnaround times in Bacteriology continue to be monitored.

PROBLEMS ENCOUNTERED & LESSONS LEARNED

“As a generalisation, Pathology has a tendency to pursue audit projects as small discrete monthly chunks, organised within strict departmental lines. Whilst such laboratory-focused process audit suits our internal structure, it often fails to address pan-pathology issues, or the wider needs of clinicians across the Trust and beyond who request our analytical services. Over the coming year we must make a determined effort to move away from laboratory audit into genuinely clinical audit.

For many years UBHT has had no infection control nurse, as a result of an overly-devolved quality culture. Our recent appointment of two infection control nurses will now enable Pathology to have a more focused approach in addressing the general issue of hospital infection control, with special reference to post-operative wound infection. We expect this initiative to have a major impact over the next few years.

Pathology has a poor record of involving MLSOs in audit, although they make up the majority of our professional staff. We have inadvertently established a culture where audit is seen to be for doctors and clinical scientists, together with only a few of the more senior MLSOs. If this is to change, we must place similar expectations of attendance and involvement on all professional staff, and ensure that audit meetings are held at times when MLSOs can attend.

The computer systems within Pathology are both a strength and a weakness. Originally developed to support the laboratory analytical and reporting process, our databases are poor at providing genuinely clinical data 'on-tap', such as required to support the latest Calman-Hine cancer initiative. However, we can usually extract rich clinical data using our in-house programmer expertise.”

ALSO SEE...

Cardiothoracic Services – “How efficient is the ordering of blood and blood products following adult cardiac surgery at the BRI?” (3.4.2.3)

RADIOLOGY

SUMMARY

Number of 1997/8 roll-overs ◀	6
Number of new audits ■	9
Number of re-audits ●	9
Number of ongoing monitoring projects ▶	1
Total number of audits	22
Number of current (i.e. uncompleted) audits ▶	5
Multidisciplinary audits	13/16 (81%)
Interface audits	2/6 (13%)
Audits measuring against or resulting in development of standards or guidelines	15/16 (94%)
Audits involving standards or guidelines which have been/will be developed following consideration of available evidence about clinical effectiveness	8/16 (50%)
Audits which directly involved patients <i>(percentages above do not include 1997/8 roll-overs)</i>	3/16 (19%)
Audits resulting in changes in practice <i>(percentages above include 1997/8 roll-overs, but not 1998/9 'current' projects)</i>	13/17 (76%)
Re-audits confirming improved patient outcomes <i>(percentages above include completed re-audits and ongoing projects only)</i>	8/11 (73%)

EXEMPLAR AUDITS

3.4.14.1

Can justification be found for reducing 99mTc-HMPAO labelled leucocyte scanning in the investigation of suspected small bowel Crohn's Disease? ●

Dr A Leslie & Dr J Virjee

Crohn's disease (CD) is a chronic condition causing transmural inflammation of any part of the gastrointestinal tract. It has a prevalence of approximately 1 in 1000. The commonest sites for CD are the small bowel and perianal region. The anatomical position of the small bowel means that radiological assessment is often relied upon. The two principle methods of imaging the small bowel are barium radiography (BaFT) and 99mTc-HMPAO labelled leucocyte scanning (WCS). WCS scanning is relatively expensive (£200 per examination) and the number of requests has been rising steadily since its introduction in 1991.

This audit compared the sensitivity and specificity of BaFT and WCS. BaFT was found to be more specific and identified a greater number of complications than WCS. It was therefore concluded that BaFT should be the first line investigation in patients with suspected CD.

Since the audit, WCS requests have dropped from 40 per month to 15 per month. Because BaFT is relatively inexpensive it is estimated that to date over £30,000 has been saved with no compromise to patient care.

3.4.14.2

How accurate are radiographers' provisional ultrasound reports of examinations performed unsupervised at open access sessions? ●

Miss T Hayton, Superintendent Radiographer

Data was collected for a total of 341 patients attending open access sessions. Results showed that 3.8% of radiographers' reports were subsequently amended by radiologists – a major improvement on the 12.8% reported in the previous audit. It was also noted that 30% of the scans were reported as being normal, suggesting that GPs are being selective in the patients they choose to refer and are not using the open access sessions merely so as to be seen to be 'doing something'.

OTHER PROJECTS

3.4.14.3

Radiologist 'On Call' – what is being requested and by whom? »

Dr M Callaway, Consultant Radiologist

This workload analysis suggested that the pattern of investigations was fairly static. CT Head scans were the most common investigation (generally requested by SHOs).

3.4.14.4

Are patients happy with the open access ultrasound service? ●

Miss T Hayton, Superintendent Radiographer

Despite longer waiting times, patients appear to prefer the open access service to an appointment-based system. Long waiting times are, however, a problem for patients who have been told to attend with a full bladder. Changes in arrangements for KUB (Kidneys, Ureters, Bladder) scans are being considered.

3.4.14.5

How long do patients wait in the department for their examinations, whether with or without an appointment? ●

Mrs Sally King, Superintendent Radiographer

The results of this re-audit showed that 92% of patients had been seen within 30 minutes, either with or without an appointment.

3.4.14.6

How long does it take to dispatch reports to GPs? ●

Mrs Sally King, Superintendent Radiographer

The audit produced excellent results – 99.8% of reports were available within 10 days of the patient being seen.

3.4.14.7

How long does it take to issue appointments for radiological examinations? ●

Mrs Sally King, Superintendent Radiographer

This audit showed a decline of 9% in the proportion of appointments being dispatched within 10 days. A review of booking routines has since been undertaken.

3.4.14.8

How many patients attend for examinations without their previous films? ●

Mrs Sally King, Superintendent Radiographer

Lack of availability of previous x-rays can lead to more films being done than would otherwise be necessary. This entails increased radiation exposure for the patient, extra work for staff and hinders completeness of the Radiologist's report on the investigations. Almost all OP/GP patients are attending with previous films, however IP referrals continue to be a concern.

3.4.14.9

How accurate are provisional reports written by radiographers performing barium enema examinations? «

Mr D Lee, Senior Radiographer

At present all examinations carried out by radiographers are 'double reported' by the consultant radiologist before a final report is issued. 89% of reports from radiologists agreed with the radiographers' reports. At present when the consultant is unavailable, Radiographers are not permitted to perform examinations. Enabling Radiographers to issue provisional reports would therefore help reduce waiting lists in the Consultant's absence. Following the audit it was recommended that Radiographers be allowed to issue provisional reports for patients referred from OPD (not GP and IP requests) as these films would also be discussed at clinical meetings. Since this time, however, there has been a change of consultant radiologist and the recommendation has not been implemented.

3.4.14.10

Does anticoagulation reduce the diagnostic power of ventilation / perfusion scans in patients with suspected pulmonary emboli? « †

Dr P Richards, Dr M Thornton, Dr E Loveday

Patients with suspected PE have a VQ scan. Preliminary investigations confirm the belief that the detection rate of scans is effected by anticoagulation. It would therefore appear important to make VQ scans available to patients earlier in their course of treatment. Data collection will continue during 1999/2000 and the study will be expanded to look at causes of delay between anticoagulation and scanning. It should then be possible to reach an informed decision about the need to change the ventilation isotope to enable scans to be performed daily.

3.4.14.11

What is the most appropriate Barium Enema preparation if Picolax is not available? « †

Dr J Virjee, Mrs C Hamilton, Mr D Lee, Miss T Hayton

Although Picolax remains the preparation of choice, batches do not always pass quality assurance tests (a manufacturing problem) and it is therefore important to agree upon a preferred alternative. A number of preparations were therefore assessed for patient tolerance and overall bowel preparation. It was subsequently agreed that Citramag would be the most suitable alternative to Picolax.

3.4.14.12

How accurate is ultrasound reporting of chronic diffuse liver disease? « †

Dr Heather Andrews, Consultant Radiologist

Ultrasound is the standard method of detection of CDLD. This current audit is being undertaken in order to ensure the accuracy/consistency of detection.

3.4.14.13

Are samples obtained by CT guided biopsies providing adequate tissue for diagnosis? « †

Dr G Herdman

The aim of this current audit is to find out whether samples obtained by CT guided biopsy are providing adequate tissue for diagnosis.

3.4.14.14

How appropriate are requests for erect abdomen radiographs in paediatric radiology? ■ †

M Lockyer, Snr Radiographer & Dr Andrew Duncan, Consultant Radiologist

This current audit is concerned with evaluating the value of conducting erect abdomen radiographs.

3.4.14.15

Are more Thoracic MRI scans performed at the BRI than in other centres? ■

Dr M Callaway & Dr P Goddard, Consultant Radiologists

This activity analysis demonstrated that more thoracic MRI scans are performed at the BRI due to a greater proportion of scans being performed for malignancy and Inflammatory Lung Disease – areas in which other centres are still developing. A similar analysis will be carried out for Chest MR.

3.4.14.16

How does BRI practice in use of MRI for Cord Compression compare with other MRI centres? ■

Dr P Goddard & Dr D Jeffrey

UBHT recommended practice is that whole spines are scanned when cord compression is due to malignancy or unknown source, as it has been demonstrated that it is possible to miss areas of cord compression if the whole spine is not scanned. This survey revealed that this practice is not used in all other MRI centres (some scan only the region of interest), however it is hoped that these centres will subsequently amend their local protocols.

3.4.14.17

How should fetuses with isolated choroid plexus cysts be managed? »

Dr P S Richards, Miss S Ahmed & Dr H S Andrews

Experience suggests that choroid plexus cysts are normal fetal developmental variants. A review of 17,000 routine fetal anomaly scans was undertaken in order to determine whether this assumption results in a failure to detect Trisomy 18. Results indicated that this was not the case and that current practice at St Michael's Hospital was appropriate. It is hoped to publish these results as reassurance to patients. The potential benefit of this audit is a reduction in the number of CVSs and amniocenteses being performed, producing not only a concomitant financial benefit but also a reduction in the miscarriage rate for normal fetuses.

3.4.14.18

What is the radiographic quality of 'Swimmers Views' x-rays taken in A&E? ■

Mrs D Marshall, Superintendent Radiographer

Patients admitted to A&E with suspected injuries in the shoulders/neck region sometimes need repeat x-rays exposing them to relatively large doses of radiation. The use of a 'Swimmers View' position (as if the patient was performing backstroke) enables greater accuracy. This audit confirmed that high standards were being achieved by radiographers working in this area. Minor improvements relating to alternative positioning of the patient and size of film have subsequently been introduced and extra training provided where appropriate.

3.4.14.19

Do radiation doses received by staff performing SPECT Studies exceed levels found in other centres? ■ ▶

Mrs V Parkin, Supt. Radiographer

Data is currently being collected.

3.4.14.20

Can radiation doses received by infants on the neonatal unit at St Michael's Hospital be reduced? »

Mrs V Shore, Senior Radiographer

As part of the ongoing monitoring of levels of radiation, protocols for dose reduction were compared with those used in other hospitals. The use of additional aluminium filtration has subsequently led to a 20-30% reduction in the entrance surface dose with no detrimental effect on image quality.

3.4.14.21

Can radiation doses received by staff on the neonatal unit at St Michael's Hospital be reduced? »

Mrs V Shore, Senior Radiographer

(Also see 3.4.14.20 above). In the same way, protocols for dose reduction for staff (who hold the neonate and are therefore exposed to radiation) have been reviewed.

3.4.14.22

Are levels of radiation received by patients in A&E x-ray (Suite E) within NRPB guidelines? »

Mrs D Marshall, Superintendent Radiographer

Radiation levels recorded in Suite E were found to be within levels deemed acceptable by the National Radiological Protection Board. Even so, further dose reductions of 40-50% have been achieved by introducing new intensifying screens.

ALSO SEE...

Children's Services – "How much qualified nurse time is spent escorting patients to the X-ray department at BCH?"

Surgery – "How well are radiographic abnormalities detected in A&E?"

SPECIALTY SERVICES

SUMMARY

Number of 1997/8 roll-overs ◀	2
Number of new audits ■	3
Number of re-audits ●	0
Number of ongoing monitoring projects ▶	3
Total number of audits	8
Number of current (i.e. uncompleted) audits ▶	2
Multidisciplinary audits	4/6 (67%)
Interface audits	0/6 (-%)
Audits measuring against or resulting in development of standards or guidelines	3/6 (50%)
Audits involving standards or guidelines which have been/will be developed following consideration of available evidence about clinical effectiveness	1/6 (17%)
Audits which directly involved patients <i>(percentages above do not include 1997/8 roll-overs)</i>	1/6 (17%)
Audits resulting in changes in practice <i>(percentages above include 1997/8 roll-overs, but not 1998/9 'current' projects)</i>	1/6 (17%)
Re-audits confirming improved patient outcomes <i>(percentages above include completed re-audits and ongoing projects only)</i>	0/3 (-%)

EXEMPLAR AUDITS**3.4.15.1****Are infusion devices being appropriately maintained? ■***Mr P H Smithson, Principle Physicist***MEMO**

Infusion devices (IDs) have become a major class of medical devices at UBHT, both in terms of numbers and clinical importance. IDs are used in high-risk situations where their malfunction could endanger lives.

This audit involved clinical scientists, clinical technologists, consultants and nursing staff. It drew on standards published in *MDA Device Bulletin* (May 1995), the Scottish Office document *MDA: The Management of Infusion Systems*, the relevant MEMO protocol and various manufacturer service manuals.

The results showed that the majority of work carried out by MEMO on IDs is either repair or planned maintenance.

No clear link could be demonstrated between increasing planned preventive maintenance (PPM) and reduced incidence of ID failure. A benefit of the audit will therefore be time saved by over-frequent PPM. Changes in testing methods have also been introduced.

3.4.15.2**Are proton pump inhibitors (PPIs) being used appropriately? ■***Richard Cattell, Pharmacy Manager***Pharmacy**

This audit was undertaken in order to ascertain a) why patients are on PPIs and whether this is justified, b) whether patients were started on PPIs in hospital or by their GPs and c) to determine the relative proportions of individual drugs used. Results indicated that there was sufficient evidence to justify the use of a PPIs in 67% of patients. Approximately half of all patients had been started on a PPI whilst in hospital. 87% of patients were found to be on Omeprazole, despite a Medicines Advisory Group decision that Lansoprazole should be the drug of choice.

OTHER PROJECTS

Pharmacy

3.4.15.3

How are 5HT3 receptor antagonists being used and by whom? ■ ▶

Leslie Beattie, Oncology Pharmacist & Sally Burton, Pre-registration Pharmacist

This current audit is being carried out in order to ascertain a) whether Ondansetron and Granisetron are being used in accordance with anti-emetic guidelines, b) whether it remains cost-effective for the Trust to have Granisetron as the 5HT3 of choice and c) whether anti-emetic guidelines need to be reviewed. Data is currently being analysed.

3.4.15.4

What is the current level of dispensing errors? »

Sandra Gray, Senior Pharmacist

Latest results for this ongoing monitor are currently in the process of being analysed.

3.4.15.5

What are current turnaround times for dealing with requests for prescriptions? »

Sandra Gray, Senior Pharmacist

Latest results for this ongoing monitor are currently in the process of being analysed.

3.4.15.6

Are patients satisfied with the service they receive from Hightech Homecare? »

Steve Brown, Director of Pharmacy

The Hightech Homecare services provides a 'hospital at home' approach including intravenous feeding, intravenous antibiotic infusions and intravenous treatments for thalassaemia. Recipients of HH are regularly surveyed to ascertain their satisfaction with the service. Results of the most recent survey are currently being analysed.

3.4.15.7

Are patients on the Bone Marrow Transplant (BMT) Unit achieving recommended nutrient intake? « ▶

Clare Kelly, Pharmacist

A previous audit in 1996 had identified the fact that although Total Parenteral Nutrition (TPN) was being used appropriately on the BMT Unit, patients were nevertheless not achieving recommended nutrient intake. Changes in practice were subsequently implemented however the re-audit has so far been delayed by staff shortages.

3.4.15.8

Is Granisetron being appropriately prescribed in Paediatric Oncology? «

Clare Kelly, Pharmacist

Granisetron is the antiemetic drug of choice in paediatric oncology. This audit from 1997/8 was prompted by concern that Granisetron was being prescribed more frequently than recommended. A report was subsequently produced however it is not known whether this led to changes in practice.

PROBLEMS ENCOUNTERED & LESSONS LEARNED

MEMO

"There are problems with motivating staff to understand the relevance and need for audit in the non-clinical areas of the directorate. The ID project also highlighted a problem with defining the scope of a project – the audit became very large and results difficult to interpret. Future audits need to focus more on the audit question. Staff undertaking audit need guidance and support."

Pharmacy

“The audits undertaken by Pharmacy have mainly focused on small projects that arise from current service provision. Although these have provided useful information, the scale of the topics has been limited due to the level of funding available and hence pressure on the available staff time. Projects have therefore related to essential contract monitoring or aspects of service where data can be easily gathered from current systems and processes. Although major projects have been identified the availability of staff time to undertake the necessary work has been difficult to create. Numerous pharmacy audits address multi-disciplinary issues, but good co-ordination has also sometimes been difficult to achieve. This is less problematic when pharmacy is contributing to a directorate audit than when ownership by other clinical colleagues is required for pharmacy led projects. Future attention therefore needs to be focussed on identifying projects of significant importance for the Trust, creating the time to fully investigate the selected topics, and ensuring both good communication and the involvement of other clinical colleagues.”

ALSO SEE...

Medicine – “Is the directorate’s antibiotic prescribing policy being followed?” (3.4.7.17); “Is the Trust prescribing policy being followed in the directorate of Medicine?” (3.4.7.18)

SURGERY

SUMMARY

Number of 1997/8 roll-overs ◀	2
Number of new audits ■	30
Number of re-audits ●	0
Number of ongoing monitoring projects ▶	0
Total number of audits	32
Number of current (i.e. uncompleted) audits ▶	12
Multidisciplinary audits	9/30 (30%)
Interface audits	1/30 (3%)
Audits measuring against or resulting in development of standards or guidelines	29/30 (97%)
Audits involving standards or guidelines which have been/will be developed following consideration of available evidence about clinical effectiveness	28/30 (93%)
Audits which directly involved patients <i>(percentages above do <u>not</u> include 1997/8 roll-overs)</i>	5/30 (17%)
Audits resulting in changes in practice <i>(percentages above include 1997/8 roll-overs, but not 1998/9 'current' projects)</i>	16/20 (80%)
Re-audits confirming improved patient outcomes <i>(percentages above include completed re-audits and ongoing projects only)</i>	0/0 (-%)

EXEMPLAR AUDIT

3.4.16.1

How well are radiographic abnormalities detected in A&E? ■

Liz Hare & Steve Woodman

This project was shortlisted for UBHT's 1998/9 'Audit Oscars'

The aim of this audit was to prevent patient suffering and call backs due to abnormalities being missed and to ensure that the 'green dotting system' is being used (the green dotting system streamlines the x-ray reporting service and allows missed abnormalities to be intercepted more rapidly).

Data was collected for a 12 week period and all missed abnormalities were identified. The overall error rate of incorrectly diagnosed abnormalities was calculated. For each missed abnormality a Misdiagnosis Severity Score was also calculated indicating the severity of errors.

Results:

- 94% of abnormalities were identified by A&E staff
- 74% of missed abnormalities were by SHOs
- 64% of missed abnormalities were in the upper limb, 32% in the lower limb and 4% in another site

The audit made the following recommendations for changes;

- Internal teaching in radiograph interpretation for SHOs. Could focus on key areas identified by this audit where the most errors are made (hands, feet and ankles).
- Weekly clinicoradiological meetings with A&E and radiology staff could identify missed abnormalities and highlight area in which errors are occurring.
- Individual feedback to SHOs.
- The green dot system should be used by all doctors in A&E for all abnormalities on radiographs.
- All A&E staff should complete documentation in the patients' notes.

EXEMPLAR / CONTRACTED AUDIT

3.4.16.2

How do waiting times in the One-stop Breast Clinic compare with regional and national standards? ■

Zen Rayter, Consultant Surgeon

General Surgery

The Bristol Breast Unit is under scrutiny due to local pressures and a focus on breast services in general due to the Calman-Hine Report. To be accredited as a specialist breast cancer team, it is necessary to examine out-patient waiting times and compare these with regional (Avon & Somerset Cancer Services) and national (BASO) standards. All new patients who attended the one-stop breast clinic between September 1997 and March 1998 were included in the audit.

Results:

- 10% of urgent referrals were seen within 5 working days (BASO standard = 100%)
- 26% of urgent referrals were seen within 10 working days (A&S standard = 100%)
- 29% of other new referrals were seen within 15 working days (BASO/A&S standard = 100%)
- Referrals enter the system all over the hospital due to GPs incorrectly addressing referrals

The following changes have been implemented:

- Previously consultants categorised patients as 'Routine', 'Soon' or 'Urgent'. The 'Soon' category has been scrapped and 'Urgent1' and 'Urgent2' categories have been introduced.
- Consultants view new referral letters on a daily basis.
- A new clinic code has been introduced so it is possible to identify breast patients.
- A protocol for breast referral letters has been introduced to ensure appointments are allocated quickly allocated.
- An Outpatients Clerk has been appointed for the Breast Unit to oversee the Breast Unit referral letters going through the appointment system and allocate appointments.
- GP news (a newsletter) will inform GPs where to send referrals.
- There will also be a mail-shot to GPs to tell them where to send referrals.

CONTRACTED AUDIT

3.4.16.3

Is the Bristol Breast Unit achieving the minimum standards laid down by Avon & Somerset Cancer Services? ■

Alastair Sammon, Consultant Surgeon

General Surgery

A&SCSs standards indicate minimum requirements for accredited providers of cancer services.

Results:

- 52% of GPs (standard=100%) were notified of the diagnosis of breast cancer within 24 hours. The standard was notified by A&SCS and acted on by the Breast Unit within the audit period.
- 88% of patients (standard=100%) had recorded in their medical records whether a Breast Specialist Nurse was present when the diagnosis was given and/or a contact name and number provided. The Breast Care Nurse contact was recorded in every patient since the standards were received in June 1998 (overall data collection was for the period February – October 1998) and therefore no action needed be taken.
- 98% of diagnoses (standard=100%) were based on triple assessment (for 1 patient triple assessment was inappropriate)
- 100% of patients (standard>90%) were offered an admission date for diagnostic operation within 15 working days of the decision to operate.
- 90% of patients (standard=90%) with a diagnosis of breast cancer were admitted for definitive surgery within 20 working days of the patient being informed of the need for surgery (for 2 patient the standard was inappropriate, and therefore the true achieved figure was 94%)
- 98% of surgery (standard=100%) was undertaken by a Consultant or a Higher Surgical Trainee level 2 who is judged competent by the consultant & has at least 2 months experience on the Breast Unit.
- 100% of reports of imaging (standard=100%) included details of site, size and nature of any abnormality with an opinion as to the most likely diagnosis and made appropriate recommendations for further intervention where appropriate.
- 22% of patients had no record of consideration for a clinical trial (evidence of at least consideration should be present in 100%)

- 92% of GPs (standard=100%) received communication giving diagnosis, care plan and toxicity profile of any proposed systemic treatment from the first postoperative review and at the change of any treatment.
- 100% of patients (standard=100%) were considered for adjuvant therapy with either chemotherapy or tamoxifen.
- 98% of Fine Needle Aspirations (standard>90%) from lesions which subsequently proved to be cancer were adequate, as deemed by the breast pathologist.
- 91% of palpable breast cancers (standard>=90%) were diagnosed preoperatively.
- 4% of primary operable breast cancers (standard<10%) had undergone frozen section.
- 52% of histopathology reports (standard=100%) complied with the minimum data set agreed by the A&SCS Pathology Group.

Therefore the majority of standards were well adhered to. The three significant exceptions were a) that the GP was notified of the diagnosis of breast cancer within 24 hours in only 52% of patients, b) that only 22% of patients had a record of consideration for a clinical trial and c) that histopathology reports complied to the A&SCSs minimum data set in only 52% of cases. These deficits are being addressed.

INTERFACE AUDIT

3.4.16.4

Are patients suffering long-term pain following repair of inguinal hernia? ■ ▶

Zen Rayter, Consultant Surgeon

General Surgery

A consultant surgeon at the BRI received a letter from a local GP suggesting that some patients who have had a hernia repair are not returning to their normal day-to-day routines as quickly as expected and are suffering more than an expected amount of pain. It was therefore agreed to investigate this claim by undertaking an audit project in conjunction with Avon PCAG.

Standards have been agreed:

- 100% of patients undergoing inguinal hernia repair surgery should be given an adequate supply of analgesia on discharge
- 100% of patients undergoing inguinal hernia repair surgery should be given an information leaflet
- 0% of patients should need to visit their GP for post-operative pain relief or advice within 5 days of a) discharge (for day case patients) or b) operation date (for inpatients)
- 80% of patients should be pain-free after 1 month
- 100% of patients should be pain-free after 3 months

Evidence base:

- Callesen T, et al. [Pain after hernia repair](#), British Journal of Surgery, 1998, **85**, 1412-1414.
- Davies, N M, et al. [Experience with 300 laparoscopic inguinal hernia repairs with up to 3 years follow-up](#), *Annals of the Royal College of Surgeons*, **77**, 409-412.

Data is currently being collected from casenotes and GP and patient questionnaires.

OTHER PROJECTS

General Surgery

3.4.16.5

Are stoma patients being adequately prepared before their surgery? ■

Mia Card, Research Nurse

This project was the result of perceived problems with the referral system to the Stoma Care Department. The audit measured against standards derived from Avon & Somerset Cancer Services. 88% of elective patients saw a stoma care nurse before their surgery, whilst 36% of emergency patients saw a stoma care nurse (or were adequately prepared by another member of staff) before their surgery. A tick-box form is currently being designed for Doctors in outpatients to refer patients to the Stoma Care Department. A patient information leaflet is being produced and a PR exercise has been set up on wards to reinforce the benefits of early referral to the Stoma Care Department.

3.4.16.6

Can surgical guidelines be agreed for the hospital management of breast abscesses? ◀

Jane Blazeby, Specialist Registrar

Management of breast abscesses includes aspiration and antibiotic therapy or incision under general anaesthesia. Aspiration may inadequately drain a loculated lesion and lacks histological diagnosis, but surgery is inconvenient and may have poor cosmesis. This study audited the hospital management of breast abscesses and investigated morbidity after discharge. As part of the project a follow-up questionnaire was sent to patients. The audit revealed that many abscesses are managed by incision and drainage which may cause problems with fistulae. Needle aspiration and specialist follow up is now recommended to reduce morbidity and improve patient knowledge. Other elements of new management guidelines include ultrasound examination to confirm diagnosis and guide aspiration, and patient follow-up with the specialist breast team. This topic will be re-audited.

3.4.16.7

Can local standards be agreed for the management of C3 lesions in breast cancer? ■ ▶

Deborah Markham, Research Registrar

This current audit is being undertaken in order to determine current practice and establish local standards.

3.4.16.8

Are patients having enough bed rest after transfemoral arteriograms, angioplasties and stent insertions? ■ ▶

Angie Nicholson, Sister

It was noted that patients with the same diagnosis were having different amounts of bed rest following their procedure. The aim of this project is therefore to identify best practice and standardise the amount of bed rest that patients receive. Data is currently being collected

3.4.16.9

What is the incidence of hypocalcaemia after total thyroidectomy? ■ ▶

Dr E O Pearse, Senior House Officer.

As well as monitoring the incidence of hypocalcaemia, this audit is seeking to identify predictive factors (e.g. higher incidence in redo surgery). This may lead to local agreement on appropriate prophylactic treatment. Data is currently being analysed.

3.4.16.10

Is 'Possum' scoring a good predictor of morbidity and mortality following surgery for upper GI malignancy? ■ ▶

Mr C P Barham

Preliminary results confirm a close correlation between prediction and actual morbidity/mortality. Further cases are to be reviewed.

3.4.16.11

What are patients' perceptions of early discharge with an axillary drain after breast cancer surgery? ■ ▶

Zen Rayter, Consultant Surgeon

Whilst it has been shown that early discharge may be cost effective and produce similar rates of morbidity, there are few studies which have addressed this trend from the patient's perspective. This multi-professional audit was carried out over a period of one year. The results demonstrated that the majority of patients were happy to be discharged early from hospital with a drain still in place. However, despite intensive teaching in the management of their drains, two thirds of patients subsequently needed to contact either a district nurse, doctor or the hospital ward regarding their drain. An analysis of surgical morbidity is currently being undertaken.

General Surgery, Trauma & Orthopaedics (T&O) and Urology

3.4.16.12

Are nursing staff carrying out good practice in their care of infusions? ■

Julia Wynn, Operational Co-ordinator

This project was instigated with the aim of ensuring correct administration of intravenous fluids by nursing staff. Local standards were agreed using the UKCC *Code of Professional Conduct* (1992). Only 10% of IV lines were found to be labelled and only 47% of fluid charts were fully completed. As a result of the audit, guidelines are being established for changing of administration sets, a universal fluid chart is being developed for use on surgical and trauma wards and fluid management protocols are being discussed with ward managers to assess training needs.

3.4.16.13

Are hospital casenotes being properly maintained? ■ ▶

Heidi Bishop, Clinical Audit Facilitator

This audit was carried out at the same time as the Trust-wide CNST audit. The standards in this audit were based on guidelines produced by the Royal College of Surgeons. At least 90% compliance was achieved with the majority of these standards. Two notable exceptions were the failure to record the patient's medical record number on each page (41% compliance), and the fact that only 55% of discharge summaries were sent out within the requisite 14 days. Recommendations will be agreed when the project is formally presented in May 1999.

3.4.16.14

Are nursing staff carrying out good practice in their care of cannulae? ■

Julia Wynn, Operational Co-ordinator

This audit was based on local standards developed from the UKCC *Code of Professional Conduct*. These standards were generally well adhered to, however dressings were recorded as being 'clean' in only 69% of cases and the removal of cannulae was documented in a similar percentage. Following the audit a cannulae care plan is being developed, equipment reviewed and a Visual Infusion Phlebitis Score introduced on charts.

General Surgery and T&O

3.4.16.15

Are patients satisfied with post-operative pain relief on the surgical and trauma wards? ■ ▶

Jacqui Gannon, Pain Manager

Undertaken in conjunction with the directorate of Anaesthesia, this current survey is seeking to establish whether patients a) received an adequate explanation of their pain management prior to surgery and b) are satisfied with their pain relief.

T&O

3.4.16.16

Has the introduction of an orthogeriatric proforma for fractured neck of femur patients led to improved clerking? ■ ●

Dr Sue Wensley, Staff Physician, Bristol General Hospital

An accurate assessment on admission is the hallmark of good geriatric care. A large proportion of fractured neck of femur patients have medical/psychosocial problems and many have coexistent medical problems alone. Mental and functional status are the major determinants of rehabilitation potential. The introduction of a new clerking proforma led to improvements in all aspects of documentation including medical history and mental function.

3.4.16.17

Can waiting times be reduced by allowing nurses to request x-rays in the orthopaedic outpatient clinics? ■

Sharon Nicholson, Staff Nurse

It was identified that patients attending the orthopaedic outpatient clinics were waiting too long to see a doctor. Patients attended the orthopaedic clinics at their appointment time and those with early appointments often had to wait whilst x-ray requests were being filled out by the doctors. Consequently only 53% of patients were seen within the standard 30 minutes of their appointment time. A proposal was therefore put forward to allow outpatient nurses to request x-rays. A protocol enabling this change was implemented in February 1999 and a re-audit will be undertaken in 1999/2000 to see if practice has improved.

3.4.16.18

Are patients with fractured neck of femur satisfied with the service provided by Occupational Therapy? ■ ▶

Georgina Simpson, Occupational Therapist

This topic was identified as an important local issue where it may be possible to improve practice. Patients' views about the service they receive from the OT department are required to identify possible problem areas and to see if there are additional services that patients would like to receive. Patients' views are currently being requested in the form of a patient survey.

3.4.16.19

Is there a case for Hand Therapists in the Hand Unit receiving more clerical support? ■

Dawn Hollis, Occupational Therapist

It was felt by the Hand Unit that the OTs and Physiotherapists were undertaking a substantial amount of clerical work and that phone calls were proving to be an interruption during patient contact. This audit was undertaken to find out if there was sufficient clerical work being done by OT and Physiotherapists to warrant additional clerical support. 13% of OT/Physio time was identified as being spent on work that could be done by clerical staff, however no additional clerical time has since been purchased.

Urology

3.4.16.20

Does the information given to patients undergoing Trans-Urethral Resection of the Prostate (TURP) meet their needs and expectations? ■ ▶

Alison Geale, Senior Staff Nurse

Data is currently being collected.

3.4.16.21

How long are urology cancer patients waiting for their first outpatient visit, staging and curative surgery? ■

Sandy Gujral, Specialist Registrar

Results:

- average waiting time from GP referral to first outpatient appointment = 20 days (standard=14 days).
- average waiting time from the first outpatient visit to date of XR staging = 35 days.
- average waiting time from first outpatient visit to placement on waiting list = 20 days.
- average waiting time from placement on the waiting list to curative surgery = 30 days.

T&O and A&E

3.4.16.22

How long are patients with a fractured neck of femur waiting in A&E? ◀◀

Nikki Johnson, Sister

This audit was a response to an identified local problem. The objectives were firstly to reduce the amount of time patients are spending on beds in A&E awaiting transfer to the ward and secondly to produce 'fast tracking' guidelines. The local standard states that 100% of patients should arrive on the ward within 4 hours of arrival in A&E. Data was collected for the first three months of 1998 and the standard was found to have been met in only 36% of cases. A fast-tracking system has now been introduced and this topic will be re-audited.

A&E

3.4.16.23

Are expected medical and surgical patients in A&E experiencing delays in seeing an appropriate grade of doctor? ■ ▶

Paul Younge, Registrar

This audit was carried out in order to ensure that patients are being seen by an appropriate grade of doctor and within an appropriate length of time. Data was collected over a two week period in June/July 1998. The standards for both 'resuscitation' and 'non-urgent' patients were met in 100% of cases. Problems were, however, identified in the other three categories ('very urgent', 'urgent' and 'standard'), e.g. 0% of 'very urgent' patients were seen by an appropriate grade of doctor (i.e. at least a Registrar). Recommendations will be discussed when the project is formally presented in April 1999.

3.4.16.24

Are asthma patients being managed in accordance with the British Thoracic Society's guidelines? ■

Claire Rees, SHO

As a result of this audit it was agreed that Peak Expiratory Flow Rate (currently measured in 77% of patients), % predicted PEFR (currently 87%) and vital signs should always be documented. It was also agreed that all patients with moderate to severe asthma should be discharged with steroids and that all patients should be discharged with a GP letter.

3.4.16.25

Are A&E casenotes being adequately completed? ■

Jeremy Reynolds

Good documentation of A&E casenotes assists follow-up at review clinic or by other teams. It is also important in cases of litigation and to enable meaningful clinical audit. Standards for this audit were developed from standards previously advocated by the British Association for Accident and Emergency Medicine. The only area of poor practice was a failure to record the time of referral. A re-audit will be carried out in the future.

3.4.16.26

Are the correct antibiotics and length of treatment for urinary tract infection being prescribed in A&E? ■

Rachel Whelan, SHO

The local standard states that all women with uncomplicated UTI should initially be prescribed 3 days' Trimethoprim. The audit found that 69% of patients were treated with Trimethoprim (a further 4% met the exception criteria), although only 4% were treated for the requisite 3 days. The importance of following the standard has since been reinforced to SHOs.

3.4.16.27

Are patients spending longer than necessary in a cervical spine immobiliser? ■ ▶

Katie Barton, Staff Nurse

It is uncomfortable, painful and stressful for patients to spend more time than is absolutely necessary in a cervical spine immobiliser. It may also lead to pressure area breakdown. A local standard states that 100% of patients should be out of the cervical spine immobiliser within 45 minutes of arrival at A&E. Data was collected over a two month period in the summer of 1998 indicating that only 30% of cases were reaching the standard. Recommendations are currently under discussion.

3.4.16.28

Are mandatory GP letters being sent and do they contain relevant information? ■

Daniel Titcombe, SHO

Patients who attend A&E and fit certain categories (e.g. children under 16) must have a letter sent to their GP. The audit found that only 50% of mandatory letters had been sent and furthermore that only 50% of letters that were sent contained details of investigations, diagnosis and follow-up information. SHOs have been made aware of the local standards and this topic will be re-audited.

3.4.16.29

Are patients having unnecessary ankle x-rays? ■

Jane Busey, SHO

This audit was carried out as part of the SHO audit programme in A&E. There has been a recent increase in the number of ankle x-rays being taken which is disproportionate to the increase in presentation of ankle injuries. A local standard was agreed that patients with ankle injury should be managed in accordance with the Ottawa Ankle Rules (1996). Results indicated that 17% of all patients presenting with an ankle injury had unnecessary x-rays. SHOs have received re-education about the Ottawa rules and an ink stamp has been produced as an aid-memoir. This topic will be re-audited.

3.4.16.30

How are eye injuries being managed in A&E? ■

Nina Johns, SHO

This project was undertaken with the specific aim of producing guidelines for the management of eye injuries. Practice was measured against triage guidelines 'borrowed' from Bristol Eye Hospital. Results identified deficits in a number of areas including use of fundoscopy and examination of eye movement, pupils and lids. The Eye Hospital is organising a training session for A&E SHOs and an ink stamp has been produced as an aid-memoir. This topic will be re-audited.

3.4.16.31

Are patients having unnecessary knee x-rays? ■

Vasia Kavadas, SHO

The local standard is that patients presenting to A&E with knee injuries should be managed according to the Ottawa Knee Rules. This audit revealed that all patients presenting to A&E with a knee injury who should have had an x-ray received one, but that an additional 11% of knee injury patients received an unnecessary x-ray. SHOs have since attended a presentation about the Ottawa knee rules and an ink stamp has been produced as an aid-memoir.

3.4.16.32

Are patients having unnecessary abdominal x-rays? ■

Fiona Cookson, SHO

Royal College of Radiologists guidelines state that abdominal x-rays may be indicated for perforation, obstruction, acute IBD, acute NSAP (if admission and surgical consideration), and chronic pancreatitis. Over a two month period, 14/68 (21%) x-rays met these criteria. In 9 cases the patient's diagnosis changed as a result of the x-ray.

PROBLEMS ENCOUNTERED & LESSONS LEARNED

"The directorate has had a lack of nursing audit and a lack of attendance of nurses at the audit meetings in General Surgery. The clinical audit facilitator and convenor have subsequently worked together to encourage nursing participation in audits, to which there has been a positive response. Nursing audits have now been presented at audit meetings in General Surgery and there has been an increase in number of audits being lead by nurses.

A further problem within the directorate has been that some audits have not been completed, mainly due to the project lead leaving the Trust. This issue is currently being addressed."

ALSO SEE...

Anaesthesia – "Are patients satisfied with control of pain and nausea immediately post-day Case Hernia and Varicose Vein Surgery?" (3.4.1.2)

3.5 Major Trauma Outcome Study

The MTOS project continues to be managed by Lynn Dadley, who provides this update:

“This study continues with the addition of Weston General Hospital since January 1999. This takes the total number of participating hospitals to seven.

In the past year the BRI has contributed 100 cases to the study, of which there were eight deaths.

The peer review process continues and in the past year has identified six cases as receiving unsatisfactory management. The reasons for the unsatisfactory status are given below:

1. Should have had a laparotomy prior to transfer (patient transferred when unstable)
2. Delay in acceptance for transfer. Neurosurgeons asked to see CT scan – verbal report not adequate
3. Delay in delivery of definitive diagnosis in theatre resulted in hypovolaemic arrest. Conflict in treatment for different injuries i.e. fractured pelvis vs. ruptured spleen (spleen should have taken priority)
4. CT scan not carried out until 5 days post-injury
5. Pelvic X-ray not carried out despite mechanism of injury being a fall
6. Unacceptable delay in contacting Neurosurgeons (Frenchay)

All of these issues have been addressed by the A&E consultants with the aim of improving the care delivered.

This study now has a central database which is updated using the information entered onto the database at the local centre (BRI). This will provide local accessibility to the data as well as combined analysis from the central system. It is hoped that this will be utilised for research purposes at the local centres.

The study continues to be the most effective way to audit trauma cases. The co-operation, experience and benefits gained by belonging to this group continue to outweigh the cost of joining the UK Trauma Network.”

APPENDIX A

UBHT Clinical Audit Strategy

1. Definition

Clinical audit is

The systematic and critical analysis of the quality of clinical care including the procedures used for diagnosis, treatment and care, the associated use of resources and the resulting outcome and quality of life for the patient¹

Clinical audit is a multi-professional activity in which clinical processes are monitored to ensure best practice and in which clinical outcomes are measured to ensure patient outcomes meet or exceed associated expectations. At its best, clinical audit is patient-focused, where appropriate crossing artificial boundaries of primary, secondary and continuing care.

2. Context

The 1997 White Paper *The New NHS* and 1998's *A First Class Service* reinforced the position of clinical audit as an essential element of professional practice in the Health Service. Clinical audit is therefore at the heart of UBHT's arrangements for **Clinical Governance**² and integral to the Monitoring aspect of the national **Clinical Effectiveness** initiative³

This document updates and revises the previous clinical audit strategy written in 1996.

3. Aims

The aims of clinical audit at UBHT continue to be:

- To improve the quality of care received by patients by promoting clinically effective (i.e. best) practice
- To improve health outcomes for patients
- To contribute to improved clinical cost-effectiveness of treatments

4. Strategic objectives

- To encourage multi-professional audit as part of routine clinical practice
- To focus audit activity on areas where there is clear evidence about clinically effective practice
- To participate, where appropriate, in national and regional audit initiatives
- To respond, where appropriate, to identified local concerns and complaints
- To encourage the development of robust clinical standards, guidelines and care pathways
- To ensure that, where indicated, clinical audit projects lead to positive changes in practice
- To ensure that all Trust staff have access to audit support staff who can provide them with advice and guidance when planning and undertaking clinical audit
- To continue to develop links with other related groups within the Trust, including the Research & Development Support Unit, Postgraduate Library and Consumer Involvement & Information Unit

¹ Promoting Clinical Effectiveness, Dept of Health, 1996

² Clinical Governance is a system which involves agreeing, delivering and monitoring clinical standards within the Trust - see Clinical Governance - information for staff, UBHT, 1998

³ See Clinical Effectiveness Strategy, UBHT, 1999

- To facilitate the use of clinical audit to enable the Trust to meet its obligations for Clinical Governance
- To provide the Trust Board via the Clinical Governance Committee with relevant information about clinical audit activity in the Trust
- To advise Bristol Primary Care Groups in clinical audit and the development of their Clinical Governance arrangements
- To make appropriate information relating to the Trust's audit activities available through the UBHT website
- To actively explore ways in which patients and carers can most appropriately and effectively be involved in Trust clinical audit activities
- To encourage the professional development of Trust audit support staff
- To ensure that all clinical audit resources are used in ways which maximise benefit to the Trust and to patients

4.1 Training & Education

The following strategic objectives relate specifically to the organisation and delivery of training and education:

- To ensure that all clinical staff and managers have access to training in basic audit skills. This training will be provided both within directorates and through the Trust's Staff Development Programme
- To ensure that staff also have access to training in the following:
 - ⇒ Writing standards and guidelines
 - ⇒ Care Pathway Development
- To establish and maintain links with the University of Bristol and the University of the West of England
- To promote knowledge of clinical audit through continued development and review of the Trust's *How to...* guidance booklets
- To share training materials through the Trust website
- To participate with other appropriate departments and organisations in the planning and delivery of training relating to Clinical Effectiveness, including:
 - ⇒ Basic awareness of evidence-based healthcare
 - ⇒ Critical appraisal skills

ⁱ Promoting Clinical Effectiveness, Dept of Health, 1996

ⁱⁱ Clinical Governance is a system which involves agreeing, delivering and monitoring clinical standards within the Trust - see Clinical Governance - information for staff, UBHT, 1998

ⁱⁱⁱ See Clinical Effectiveness Strategy, UBHT, 1999

CHRIS SWONNELL
CLINICAL AUDIT CO-ORDINATOR
FEBRUARY 1999

APPENDIX B

UBHT Clinical Audit Staff

DIRECTORATE	AUDIT SUPPORT	GRADE (A&C)	ROLE / W.T.E.	AUDIT CONVENOR
Anaesthesia	Nikki Evans (x3801)	5	Audit (1.0)	Dr Mike Kinsella (x2163)
Cardiac Services	(vacant)			Mr Alan Bryan (x2822)
Children's Services	Chrissie Gardner (x5046) & Martin Norris	5	Audit (0.7)	Dr Lisa Goldsworthy (x5492) & Dr Eleri Cusick (x5454)
		5	Audit (0.?) and Information	
Community Services	Betty Underwood (929 1010)	5	Audit (0.5)	Ms Jess Dougal (929 1010)
Dental Services	Carolyn Southwell (x4973)	5	Audit (0.45) and Information	Mr Nigel Harradine (x4434)
Homoeopathy	Sue Barron (973 1231)	5	Audit (0.4)	Dr David Spence (973 1231)
Medicine	Simon Bryant (x3085)	5	Audit (1.0)	Mrs Pat Howard (x2049)
Mental Health	Terry Smith (x6638)	5	Audit (0.5)	Dr Bill Jerrom (x6550)
Obs, Gynae & ENT	James Mackie (x5794)	5	Audit (0.5) and Information	Mrs Kay Collings (x5169)
Oncology	Mairead Dent (x3370)	5	Audit (1.0)	Dr Chris Price (x2238)
Ophthalmology	Sue Barron (x4675)	5	Audit (0.4)	Mr Jeremy Diamond (x4653)
Pathology	James Osborne (x2513)	MLSO grade	Audit (0.5) and MLSO	Dr Ed Sheffield
Radiology	Sally King (x3857)	Radiography	Radiography & Audit	Dr Andrew Duncan
Specialty Services	Toni van der Linde	Pharmacist	Pharmacy & Audit (0.1)	Mr Phil Quirk
Surgery	Heidi Bishop (x2589)	5	Audit (1.0)	Mr Zen Rayter (x4560)
Central Office	Chris Swonnell (x4146)	SMP	Audit (1.0)	
	Tracey Jones (x4053)	6	Audit (0.8)	
	Kate Gregson	2	Audit (0.5)	

Membership of the Clinical Audit Committee

Mr Zen Rayter (Chairman)
 Mrs Lindsey Scott (Director of Nursing)
 Mrs Bette Baldwin (Consumer Involvement & Information Unit)
 Dr Rachel Brown (Primary Care Representative)
 Audit Convenors - see above

Mrs Carol Rainbow (Nursing Representative)
 Mr Chris Swonnell (Clinical Audit Co-ordinator)
 Mr David Allegranza (Avon Health Authority)
 Mrs Naaz Nathoo (Secretary to Committee)

APPENDIX C

'Current' projects from 1997/8 annual report which do not appear in the 1998/9 report

For completeness, the following audits were 'in progress' at the time of last year's report but were subsequently not completed. Reasons for this are given where known. Project references are those stated in the 1997/8 Report.

Community Services

6.4.3.5 - Palliative Care

Project abandoned. The topic is being looked at again and a new project with a different emphasis will be initiated in the near future.

6.4.3.6 - OT intervention for people in their own homes

The project became unwieldy because too much information was collected. Some local standards have, however, been set and these will be audited on a rolling programme.

Medicine

6.4.5.2 - Medical Technical Officer Role

This project has been abandoned.

6.4.5.7 - Neurology Outpatient Standards

This project has been abandoned.

Oncology

6.4.9.4 - Laxative Prescribing

There were insufficient patients being recruited in this prospective audit. The problem was therefore considered not important enough to continue with the project.

Specialty Services

6.4.12.3 - Metered-dose inhaler audit

Lead clinician left. The results of this audit are unobtainable.

6.4.12.4 - Prescribing of paediatric chemotherapy

This was a multi-centre study that was meant to coincide with the start of paediatric computer prescribing. This plan has been put on hold and hence the audit has not gone forward.

6.4.12.6 - Use of ACE Inhibitors at BGH

Lead clinician left. The results of this audit are unobtainable.

6.4.12.7 - Anaesthetic Drug Use review

The project was in the planning stage last year, but the anaesthetists no longer considered the topic a priority and it was abandoned.

Surgery

6.4.13.1 - Management of Compound Fractures

The audit lead left and the project was abandoned.

6.4.13.2 - Informed consent for tibial fracture

The audit lead left and the project was abandoned.

6.4.13.6 - Use of electrophysiological studies

Project planned last year, but never started.

Child protection issues in adult mental health services	No information available
Obstetrics, Gynaecology & ENT - 9/12 (75%)	
Delays in emergency pregnancy clinic	Not done
D&Cs (national audit)	Not done
"Skin to skin" breast feeding	Project due to start when lead returns from maternity leave
Baby feeding information	Project due to start when lead returns from maternity leave
Prolonged second stage of labour	Not done
High vaginal swab	Not done
Drug prophylaxis in caesarean section	Not done
Pharmacy & ENT	Not done
The need for a day case list	Activity analysis carried out to date
Pathology – 4/21 (19%)	
Section requirements in the diagnosis of graft v host disease	Project deferred
Lipoprotein analysis	Not done
Accuracy and quality of issued reports	Project deferred
GP use of microbiology services	Not done
Radiology - 2/6 (33%)	
Requests for abdominal radiographs in infants and children	Not done
Audit to establish level of staff knowledge about CT scanning with a view to producing an up to date information leaflet	Not done
Specialty Services – 3/4 (75%)	
Adequacy of digital photographs	Still at planning stage only
Does the radiotherapy physics unit spend too much time calibrating radiotherapy treatment machines	Still at planning stage only
Audit of the process of patient discharge, addressing the provision of discharge medication to patients and information to GPs	This project has been planned, but has not started due to staff shortages
Surgery - 2/6 (33%)	
Use of pre-booked appointments in the physiotherapy departments in the fracture clinic by medical staff	Not done
Waiting times for referral to oncologist	At planning stage only

2. Directorate forward programmes for 1999/2000

For the coming year, **in addition to those projects identified as 'current' in this year's report**, directorates have indicated that they propose to focus their audit programmes on the following topics:

Anaesthesia

- Use of association guidelines for standards of monitoring equipment
- Cause for alarm - monitoring machine alarms
- Vascular Anaesthesia Society Audit (national)

Additional projects will be identified through Quality Impact Analysis in specialties throughout May and June.

Cardiac Services

(separate report will be published later in 1999)

Children's Services

- Hydronephrosis
- Epilepsy
- Patent Ductus Arteriosus (PDA)
- Hearing assessment in meningitis cases
- Bleeding rates for tonsillectomy cases
- A+E referral audit
- Extubation in tracheo oesophageal fistula / atresia
- Line infection rates within oncology
- Ph monitoring
- Day case tonsillectomy (re-audit)
- Central venous catheter service within oncology (re-audit)
- Patient identification (re-audit)
- Play audit (re-audit)
- Parent accommodation (re-audit)

Community Services

- Are we using NC Codes appropriately?
- Post-Day Surgery symptom control
- Are we giving consistent Foreign Travel information to patients?
- How can we improve attendance at nurse-led clinics?
- What is the effect of physiotherapy triage on cold orthopaedic referral numbers?
- Do parents find their contact with the Sleep Clinic beneficial?

Dental Services

Resorative

- Collaborative audit on toothwear (Restorative)

Orthodontics

- Emergency treatment, archwire breakages (Orthodontics)
- Completeness of Orthodontic patient records (Orthodontics)

Oral Surgery

- Routine inpatient cancellations (Oral Surgery)
- Third molar treatment decisions (Oral Surgery)

Paediatric Dentistry

- Peer Review in paediatric dentistry, adult special needs and gerodontology (Community Dentistry)

Community Dentistry

- Peer review in paediatric dentistry, adult special needs and gerodontology

Homoeopathic Medicine

(None)

Medicine

- The treatment of heart failure
- Admission and discharge of patients admitted on a Friday
- Colonoscopy – treatment and follow up
- Bacterial vaginosis
- Treatment of dysphagic patients

Obstetrics, Gynaecology & ENT

ENT

- FNAs (re-audit)
- Epistaxis
- Treatment of Pharyngeal Pouch (regional audit)
- DNAs to pre-admission clinic

Gynaecology

- Laparoscopies for day surgery (re-audit)
- Antibiotic prescribing in hysterectomy patients
- Complications with STOPS under GA

Obstetrics

- Induction of labour
- Ventouse – first choice method of operative delivery
- Anti-D immunoglobulin usage within the obstetric & gynae unit
- Antenatal outcome of twin pregnancies treated with serial prophylactic dexamethasone

Oncology

- Management of Neutropenic Sepsis
- Management of Cervical Cord Compression
- Acceptability of Neoadjuvant Chemotherapy for Breast Cancer
- Investigation and Management of Lymphoma
- Management of Lymphoedema after radiotherapy for breast cancer
- Bed Utilisation (re-audit)
- Bed Occupation (re-audit)

- Chemotherapy waiting times (re-audit)
- Analgesic Prescribing (re-audit)
- Co-prescribing with analgesics (re-audit)
- Syringe Drivers – Adherence to Protocol (re-audit)

Site Specialist Teams will undertake audit against Avon & Somerset Cancer Services agreed standards in the following areas:

- Breast
- Skin/Head & Neck
- Gynaecology
- Lung
- Neuro-Oncology
- G.I.
- Urology

Ophthalmology

- Glaucoma
- Biometry
- Note-keeping
- An audit from the Optometry Department (under discussion)

Pathology

- Pre-analysis validation of samples using a computer check (re-audit)
- Out of hours Requests (re-audit)
- Reflex testing for Alpha-1 antitrypsin and phenotyping
- Urine Catecholamine Requests
- Ward-based glucose meter QC scheme
- Cardiolipin Requests
- Lipid Requests and relation to GP prescribing of lipid lowering drugs
- Unlabelled & mis-labelled samples
- Turnaround of GP Requests in Haematology
- Turnaround of GP Requests in Chemical Pathology
- 5-Year Review of Turnaround monitoring in Bacteriology
- Complications related to indwelling tunnelled central venous catheters
- National Audit of Blood Stocks
- Breast Cancer Reporting Standards
- Colorectal Cancer Reporting Standards
- Lung Cancer Reporting Standards
- Quality of post-op wound infection data on PAS
- Section requirements in the diagnosis of graft-v-host disease
- Post-Mortems: Causes of death and volume of requests

Radiology

- How many patients coming for mammography or breast ultrasound from the 'one stop clinics' are one stop?
- The role of SPECT scans in patients with high probability or indeterminate VQ scans.
- Assessment of liver biopsies - complication rates, cancellations
- Radiography in acute back pain
- Reject analysis of Radiographs
- Spiral CT in the Follow-up of pulmonary metastases
- Audit to determine the indications for chest x-ray prior to paediatric cardiac investigations.
- Cancellations - why are they occurring?

Specialty Services

Pharmacy

- Audit of the process of patient discharge, addressing the provision of discharge medication
- TON usage on the BMT unit (re-audit)

MEMO

- Effectiveness of servicing methods for infusion devices (re-audit)
- Audit of re-usable diathermy accessories
- Does the radiotherapy physics unit spend too much time calibrating radiotherapy treatment machines?

Medical Illustration

- Adequacy of digital photographs for medical reports

Surgery

- Breast Cancer (contract)
- Colorectal Cancer (contract)
- Incidence of post-operative hypocalcaemia after thyroidectomy
- Anastomotic stricture rate following oesophagectomy
- Morbidity of patients admitted with acute gallstone disease
- Efficacy of bone scans for prostate cancer
- Regional audit of management of breast cancer patients with metastatic bone disease