Sheffield Teaching Hospitals NHS
NHS Foundation Trust

Annual Clinical Audit Report 2008-2009

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Contents

Welcome

Sheffield Teaching Hospitals Clinical Effectiveness Unit (CEU) is one of the largest in the country employing approximately 20 staff in full and part-time roles. Staff emanate from a range of professional and administrative backgrounds providing a varied mix of skills and experience to PhD and Masters level.

The number of clinical audit and service review projects registered with the CEU by Trust clinicians and managers has increased again this year. This demonstrates a culture of enthusiasm for the monitoring and continuous improvement of the quality of services provided to our patients. Our internal review systems for clinical audit and clinical effectiveness projects are robust and well established

Our track record in co-ordinating and developing processes to assist with the implementation of national guidance within the Trust and across the city is impressive and we have successfully secured contracts for the adaptation of several of our local "tools" for national use.

A strong commitment to education and to providing clinicians with the opportunity to access training and support for clinical effectiveness has established the Trust as a national leader for clinical audit training, being the only NHS provider of an accredited Postgraduate Certificate in Clinical Audit and Effectiveness in England. Working closely with Sheffield Hallam University we were pleased to negotiate Healthcare Quality Improvement Partnership (HQIP) funding this year for national delivery of the course to a cohort of 20 students and this commenced in January 2009.

We strive during 2009/10 to continue to improve on what we have achieved so far and endeavour to meet new challenges with energy and creativity.

Janet Brain
Senior Manager,
Clinical Effectiveness Unit

Overview

The broad strategic aim and development intentions of the CEU at Sheffield Teaching Hospitals NHS Foundation Trust (STHFT) for 2008/09 continue to promote and support the implementation of clinically effective practice based on the best available evidence, tailored to the needs of the individual patient, in the pursuit of providing high quality clinical care.

We have tried to achieve this by;

- Prioritising high quality, evidence based clinical audit in response to both internal and external drivers, including the *Healthcare Commission Existing Commitments & National Priorities and the Core Standards* in the Quality of Services component of the Annual Health Check
- Promoting clinical audit of *National Institute for Health and Clinical Excellence (NICE) guidance* throughout STHFT and at the interface between primary and secondary care
- Providing access to high quality *clinical effectiveness education* for clinical professionals that links with the Knowledge and Skills Framework (KSF)
- Offering practical support for *service review* projects allied to the service priorities of the Trust within a structured overall portfolio of effectiveness activity

The Annual Health Check

Core Standards 2008/09 - C5a and C5d

C5a "Healthcare organisations ensure that they conform to NICE technology appraisals and, where it is available, take into account nationally agreed guidance when planning and delivering treatment and care"

C5d "Healthcare organisations ensure that clinicians participate in regular clinical audit and reviews of clinical services"

Trust compliance with Core Standard C5a has been demonstrated in a number of ways, for instance, the Trust has continued to embrace work involved with planning and delivering National Service Framework (NSF) audit requirements, which is complex and requires co-ordination across healthcare boundaries. The processes for monitoring and encouraging the implementation of NICE guidance – both Technology Appraisals and Clinical Guidelines – have been further refined and the portfolio of clinical audit work emanating from NICE and other national guidance is reflected and updated annually in our Primary Care Trust (PCT) commissioned Trust Clinical Audit Programme. Sheffield is one of the few health communities in the country with an agreed commissioned programme.

Alongside this local work we have seen the introduction of 3 new acute trust *national priorities* related to clinical audit this year in addition to the *existing commitment* "Time to Reperfusion for Patients who have had a Heart Attack". These have a focus on elements of Core Standard C5d, i.e,

- Engagement in Clinical Audits (6 self assessment questions)
- Participation in Heart Disease Audits (comparative clinical audit)
- Stroke Care (comparative clinical audit)

The CEU has played a key role in the co-ordination and monitoring of progress with these priorities and existing commitments on behalf of the Trust Executive. STHFT performance in relation to all four will be released by the Care Quality Commission (CQC) in October 2009 and we anticipate compliance with all targets and requirements. (N.B. The Care Quality Commission superseded the Healthcare Commission in April 2009).

The CEU needs to be in a position to support directorates with a wide range of clinical effectiveness initiatives, and have been faced with a challenge to find new, more efficient ways of working that will ensure delivery of Trust audit priorities alongside external "must-be-dones".

The introduction of the Clinical Governance Performance Management Tool (Dashboard) in early 2008 has supported the CEU with tracking progress for each individual directorate with a select number of clinical audits reported to the Clinical Effectiveness Committee on a quarterly basis via a traffic light system (performance managed audit programme).

The directorate performance managed audit programme provides the opportunity for directorate priority projects to be included alongside Trust and external priorities and be also recognised as important.

Despite pressure to conduct audit that addresses external requirements, the demand for supporting locally conceived audit has continued. We have continued to address this in four distinct ways;

- By taking a robust and consistent approach to *registration and quality checking* of all clinical audit projects conceived and carried out at STHFT via the introduction of a Project Panel. By providing expert guidance and advice at this very early stage we provide an assurance mechanism for the Trust on the quality of audit taking place.
- By continuing to encourage and provide training on the use of the *Simple Rules Toolkit* for differentiating between the different activities of research, clinical audit & service review. The Toolkit incorporates ethical guidance aimed at equipping clinicians with more information and knowledge to conduct robust and ethical service review.
- *By educating/training* the workforce to carry out clinical audit projects with minimal support from CEU. STHFT Clinical Effectiveness education aims to provide co-ordinated and consistent training to clinical staff delivered at 5 levels of complexity, depending on need.

- By modifying our priority setting tool and carrying out a scoping exercise amongst clinicians and managers to identify/develop a mechanism for prioritising the abundance of locally conceived clinical audit projects.

In February 2009, the Trust took part in a procurement process sponsored by HQIP and were successful in securing the national contracts for 4 Clinical Effectiveness products

- Programme Guidance Tools
- Audit, Research and Service Evaluation Guide
- Annual Clinical Audit Report Template
- Implementing Local Change from National Clinical Audit Projects

Development work commenced in March 2009 with draft products available for presentation at the HQIP national conference at the end of April 2009 and a final launch target date of end of July 2009.

Through 2008/09 HQIP have also provided funding to enable the Sheffield Teaching Hospital accredited Post Graduate Certificate in Clinical Audit to run on a national basis along with two intakes of the 'Train the Trainers' 3-day workshop. Total income generation from these 3 initiative amounts to just over £53K. Our success in securing this funding is a reflection of the quality of local Clinical Audit expertise.

The CEU was also very pleased to be invited to participate in the successful South Yorkshire Collaboration for Leadership in Applied Health Research and Care (CLAHRC) bid and will be offering half a day a week of time and expertise over the next 5 years as part of the matched funding for the Knowledge Translation theme guaranteed by STHFT to this work. The official launch of South Yorkshire CLAHRC is scheduled for April 2009.

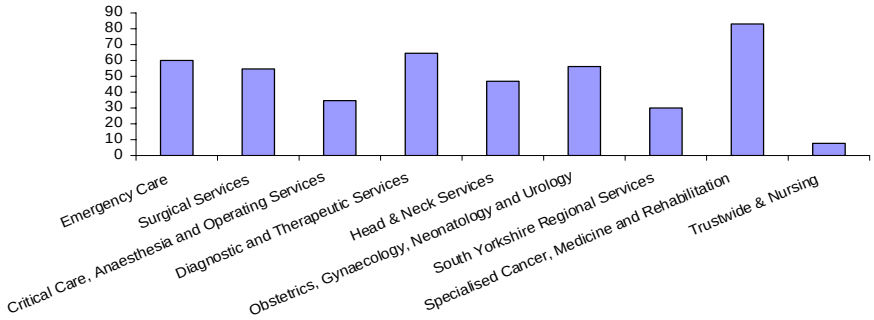
Clinical Effectiveness Project Statistics for 2008/2009

The total number of projects registered with the CEU has increased by 21.5% from 2007/2008. Just over 1.5% of these projects were rejected and 2.7% of the projects were abandoned. This equates to 439 projects registered last year that are currently ongoing or have been completed*. The table below demonstrates the breakdown of project by type between 1st April 2008 and 31st March 2009.

Type of Project	N	%
Commissioned Audit	27	6.2
Non-commissioned Audit	152	34.6
Service Evaluation	200	45.5
Audit and Service Evaluation	60	13.7
Total	**439**	**100**

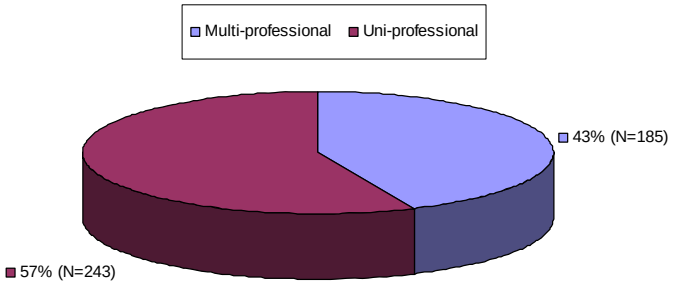
**N.B. There will be a number of ongoing projects registered in 2007/2008 that will not be reflected in these figures. Additionally there is a number of NICE guidance on the commissioned programme which will not have undergone a formal audit.*

The graph below shows the level of activity, broken down by care grouping, during the dates specified above – please refer to the individual directorate sections for more detailed information concerning the types of projects being carried out.



The graph demonstrates the amount of activity that is current or ongoing by each of the care groups and also projects that are Trustwide. It is important to note that the graph only quantifies activity; it does not provide any indication of the size or quality of each project. It should also be noted that some of these projects span across the care groups.

Over recent years, there has been more emphasis placed on ensuring that projects are multidisciplinary and involve a number of professional groups. This ensures that the quality of care is enhanced. The chart below shows the proportion of multi-professional to uni-professional clinical effectiveness projects.



At a Glance

Clinical Effectiveness Committee

The Trust Clinical Effectiveness Committee, chaired by the Associate Medical Director, and reporting directly to the Healthcare Governance Committee has met quarterly throughout 2008/09. All Trust Care Groups and relevant corporate functions are represented by the membership.

The primary purpose of the Committee is to ensure that the Trust has a systematic approach to developing and reviewing the quality of clinical care by a process of clinical effectiveness and through this process can provide the assurances that the Trust complies with the relevant Clinical and Cost Effectiveness Core Standards (C5a and C5d) as set out by the Annual Health Check.

Membership has been extended to include two Patient Governor Representatives. The remit of the Committee includes providing a reporting mechanism for Clinical Effectiveness issues raised through other Healthcare Governance processes, monitoring progress with the Trust Annual Clinical Audit Commissioned Programme and providing a link between the Directorate Governance Performance Tool and Directorate Clinical Audit priorities. The Committee also ensures that educational developments within the Trust meet the needs of Clinical Effectiveness and provides a forum for formal monitoring and reporting of mortality alerts identified through Dr Foster Real Time Monitoring

Dr Foster Real Time Monitoring System (RTM)

RTM provides outcome information- specifically mortality, length of stay, readmissions and day case rate that allows the Trust to benchmark performance against other Trusts in England. During 2008/09 mortality data has continued to be formally monitored at the Clinical Effectiveness Committee on a routine basis. This has provided a mechanism whereby directorates can scrutinise any outcome significantly different from the national norm and then report findings to a central committee where any appropriate actions can be taken.

Service Review

STHNHSFT for the year 2008/09 still continues to see a major increase in centrally registered service review projects. Unlike clinical audit it is still not mandatory to register service review projects but the advice given by the Unit is that registration of service review projects is 'best practice'.
Many of the service review projects have centred on evaluating the delivery of services, as well as evaluating an individual clinicians practice for his/her 360^0 appraisals. Most other work still reviews certain aspects of knowledge and educational/clinical governance programmes within care groupings and directorates. Numerous amounts of projects have led to improved services and change management.
A majority of service review projects have been carried out by gaining the views, comments and suggestions from patients, carers and front line STHFT staff.
Patient and public involvement is therefore central to developing / evaluating systems and procedures at both a local and national level. For example, work is currently in progress in preparation for the Cancer Peer Review process due to take place within the next few months. The Trust has acknowledged the value and benefits of listening and responding to patients/ carers and staff to improve the way our services are delivered.

National Institute for Clinical Excellence (NICE)

The year 2008 marked the 10^{th} anniversary of NICE. The focus of the 2008 NICE conference held in Manchester was on the practical, the implications of NICE guidance in real life situations, the impact of NICE over the last 10 years and the implications of NICE in the future. NICE was eulogised by many eminent speakers, including Lord Darzi and Baroness Young, for the contribution it has made providing evidence-based guidance that reaches across specialities, disciplines and patients. This major contribution was echoed by many of the speakers with the pledge

that NICE will continue to contribute to the health and welfare of persons in the UK during the next decade (at least).
The attendance of Baroness Young at the conference, affirmed the relationship between the CQC and NICE. Baroness Young stressed that NICE and the CQC shared the same ethos to protect and promote the health, safety and welfare of people who use health and social care services, and this can be achieved by the close relationship between both parties. CQC will work together with NICE to promote standards, assess quality and strive to build a wider quality system, a 'coalition for quality'. The aim of the partnership is to aid the production of national guidance to promote good health and prevent ill health; this will be far reaching across health and social care groups.
At STHFT, we are committed to treating NICE guidance as high priority. The Trust remains an active stakeholder in the consultation programmes, and a number of clinical staff have attended stakeholder meetings and returned comments and evidence to NICE on a number of consultation documents. In line with the Department of Health's Annual Health Check, STHFT are working towards compliance with National Guidance, such as NICE technology appraisals and NICE clinical guidelines. As a priority, NICE guidance is evaluated and monitored for full implementation. The financial year 2008/2009 showed a number of NICE guidance applicable to the Trust, including 28 technology appraisals and 16 clinical guidelines.
Audits of compliance with NICE guidance are constantly being performed; this has resulted in 24 audit projects registered with the CEU over the last financial year. Other evidence of compliance can be demonstrated via current policies and protocols. However, one issue that we have recently experienced is over-compliance with certain pieces of NICE guidance. This has prompted the need to develop robust mechanisms both internally and externally to report, discuss and monitor these events across the whole health community. This system has ensured that the optimum in patient care, in its entirety, remains at the forefront of the organisations involved in the health and well-being of patients.

Education & Training

2008/09 has been an exciting year for Education. The Education Advisors continue to work with Sheffield Hallam University (SHU) to develop a future accredited course. This is based upon the Postgraduate Certificate in Clinical Audit and Effectiveness previously delivered through the Clinical Effectiveness Unit. This development should complete in 2009/10. During this period the Education Advisors have received requests locally, regionally and nationally for the course to continue to run. A successful financial bid through HQIP has enabled a further course intake to commence. This is to meet the needs of individuals prior to the newly developed course becoming available through SHU. It has enabled a further 20 Clinical Audit and Effectiveness staff, both locally and nationally, to study for the Postgraduate Certificate in Clinical Audit and Effectiveness in Health and Social Care. The funding has created a secondment opportunity for an individual to support the Education Advisors. There is a continuing requirement to provide the 'In House' Education and Training Programme in Clinical Audit and Effectiveness whilst this additional intake is running.

Funding for the newly developed 'Train The Trainers in Clinical Audit' Course was also successfully received from HQIP. This enabled local and national audit staff, with a remit for delivering training in Clinical Audit, to attend this course free of charge. The course ran from January through to March 2009 and has evaluated well. It will continue to run annually.

The 'Clinical Effectiveness – Managing Change Effectively' workshop was newly developed in 2008. It has now run twice and evaluated well. This continues to be delivered three times per year.

'The Five Stages of Clinical Audit' workshop providing staff with the knowledge and skills to participate in Clinical Audit, continues to successfully be delivered four times a year.

Through working with HQIP an invitation to contribute towards the National Education and Training Strategy was offered to, and accepted by, the Education Advisors. This work is currently on going and is due to be released at the latter end of 2009. The National Strategy will have an influence on the future direction of Education and Training in Clinical Audit & Effectiveness.

Finally, the Education Advisors were accepted to lead a workshop on Clinical Audit Education at the National Clinical Audit and Improvement Conference held in February 2009. Through this an invitation as key speakers at the '4th Annual Clinical Audit Conference' in Italy has been

offered to, and accepted by, the Education Advisors for June 2009. The excitement is set to continue into 2009/10.

Clinical Assurance Toolkit (CAT)

The Clinical Assurance Toolkit (CAT) was developed in order to provide wards and departments with a co-ordinated, comprehensive and up to date range of standards that provide accurate and timely feedback of the level of compliance. This will ensure consistent standards across the Trust and give a co-coordinated, multi-professional approach. Central Nursing commissioned the Education and Development Department to develop and implement the CAT. The CEU and Informatics Department have contributed to the core development team. The CAT was launched in June 2007 and was used in a paper-based version for two years with outcomes from the CAT forming part of the overall Healthcare Governance framework. During 2008/09 work has been underway to develop an electronic version (eCAT).

Assessment for this year was undertaken in all inpatient and most outpatient areas between June 2008 and March 2009 using a more streamlined version of the CAT, with the main themes being the need for single sex accommodation, patient information and noise at night.

The 2009/10 eCAT includes updates to reflect new initiatives both at local and national level, feedback from users and outcomes from previous years. This will be launched in April 2009 and be accessible via the Trust intranet. The structure and principles remain the same, but the assessment process has changed with the emphasis being on the Programme of Activities. The biggest difference is that the CAT year will run from 1st April 2009 to 15 March 2010. Time for action planning has been allocated between 15 March and end of April 2010, which will be submitted to the Central Team.
The benefits in brief will be:

- No lengthy assessment day
- Tasks spread out throughout the year
- Hyperlinked for consistency
- More objective assessment
- Data can be accessed by authorised personnel at anytime during the CAT year
- Focuses time and efforts on action planning and improvement in practice/resources

The content of CAT continues to be updated and will require refocusing as Standards for Better Health will no longer provide the framework. There has been continued interest nationally through external presentations and visitors to the Trust. Work is occurring nationally on nursing and other metrics to measure quality of care and these will be reviewed to take them into account for further developments of e-CAT.

National Audit

The National Clinical Audit and Patient's Outcome Programme (NCAPOP) is a set of Department of Health funded national projects that provide local trusts with a common format for data collection. Data is analysed centrally by the project provider e.g. NHS Information Centre for Health and Social Care with feedback of comparative findings to:

- help participants identify necessary local improvements in the quality of treatment and care for patients
- allow individual clinicians and teams to benchmark practice and performance
- enable patients to question the quality of their care and exercise choice
- provide corroboration of a trusts self assessment against national standards for the Healthcare Commission (Care Quality Commission from April 2009)
- allow the Department of Health to assess progress against national initiatives

From 1st April 2008 HQIP took over the role of host for the management and development of the NCAPOP and 2 additional projects were included. The NCAPOP will be extended to other areas of healthcare by commissioning national audits that are considered a priority by the National Clinical Audit Advisory Group. Currently a further 12 national audits are out to tender.

The NCAPOP for 2008/09 included 24 projects across a wide range of medical, surgical and mental health conditions. STHFT participated in all the projects applicable to acute trusts (5 cancer, 6 cardiac, 2 long term conditions, 3 older people, 1 neonatal).
The Trust also continued to participate in other national audits which are not included in this national programme but are run by the Royal Colleges and other professional bodies e.g. National Audit of Occupational Health Management of Back Pain and Depression Screening, UK IBD Audit.

Specialties/teams participating in national audit have always been encouraged to develop local recommendations and action plans from the findings but this is now essential with the introduction of the performance indicator relating to engagement in clinical audit.
An example of using national audit data locally for service improvement is the National Sentinel Stroke Audit. Mechanisms are in place for dissemination of findings at operational and strategic level. An action plan was produced which supported the implementation of the National Stroke Strategy and service redesign. The audit takes place biannually and findings for the last 3 audit rounds show continuing improvements in compliance with key standards as result of actions taken by clinical and managerial staff.

Interface Audit

The appointment of two Interface Project Co-ordinators, Louise Chopra and Eleanor Clewes, to the department has enabled further clinical audits to take place across the Interface between STHFT and other trusts in the region. Below are a couple of examples of audits taking place this year:

1. Audit of NICE public health guidance 11 Maternal and child nutrition
Planning began on 24/02/09 for audit of NICE public health guidance 11. The audit lead is Kathy Cowbrough, Registered Dietician and Public Health Nutritionist, commissioned by the PCT. The audit is divided into two parts; criteria for maternal and child nutrition and organisational criteria for maternal and child nutrition. There are three population groups; women who are/may become pregnant, breastfeeding mothers and children under 5. Data collection is taking part both in the PCT and from maternity handheld notes of women who recently gave birth in the Jessop Wing.

2. An audit of Transitional Care for patients moving their treatment from Sheffield Children's Hospital NHS Foundation Trust (SCHFT) to adult services at STHFT. This audit is looking at the Did Not Attend (DNA) rates of three patient groups of teenagers before and after transition to adult services to examine the impact of transition on those patients. This will enable both trusts to identify any areas for improvement.

Patient Involvement in Clinical Effectiveness

Work has been ongoing regarding patient involvement in clinical effectiveness in response to the Trust Patient Services Plan 2008/09 (Clinical audit and effectiveness standard 16.4) and DH/NHS initiatives that have advocated patient/public involvement in both their individual care and improvement of healthcare.

As a result of the discussion paper on patient involvement in clinical effectiveness presented to the Audit Leads early in 2008, two main action points were agreed. The first was to strengthen links with governors elected by patients and the public. During the past year two Patient Governors have been successfully recruited to be members of the Clinical Effectiveness Committee and have made valuable contributions, updating Governors as appropriate. Before joining the Committee they attended a clinical effectiveness awareness-raising session to ensure they were fully informed about the remit of the group and their role within it.

The second action point signalled the need for care groups to continue to adopt a local approach to achieving patient involvement within a framework of corporate guidance to ensure consistency and robustness. The CEU already provide specialist advice and support to directorates regarding involving patients as part of the project management support. Developing local guidance has been postponed until the assessment framework to measure patient involvement in Trusts is published by the Care Quality Commission after April 2009 following a national study to explore how healthcare organisations are engaging patients and the public. Janet Jenkins (Clinical Audit Development Manager) and Sue Butler (Patient Services Manager) attended a meeting with representatives

from other Trusts to contribute to its development, which specifically looked at challenges, solutions and defining different levels of engagement along with developing indicators of patient involvement.

At the end of March 2009 *Listening, learning and working together* was published which sets out the findings and recommendations of the national study. The report gives recommendations for trusts, the Department of Health and proposals for the new CQC for how it can develop its approach to assessing engagement. This document will be considered alongside developing local Trust guidance over the next year.

Directorate Summaries

This section of the report highlights some of the clinical effectiveness activity within the Trust at Directorate level for 2008/09. The figures generated are taken from clinical audit and service review work that was registered with the Clinical Effectiveness Unit for this period. It should be noted that, as Directorates vary in size and structure, so the number of projects registered will vary. Some Directorates may undertake one or two large scale, complex audits whilst others will execute a larger number of smaller projects in a year. This activity is over and above that associated with ongoing national audits or longer-term audits of NICE guidance. Further information on Commissioned Audits undertaken by each Directorate can be found at the end of the report. All Directorate Audit Leads were given the opportunity to submit an example of a clinical audit or service review project undertaken this year that has led to a change in practice and these have been included below

Professional Services

Number of Projects Registered (2008/2009)	19
Number of Audit Projects	12
Number Of Service Evaluation Projects	7
Number of Audit and Service Evaluation Projects	0
Number Current	7
Number Complete	12

Staff in the Directorate undertook a mixed programme of audit and service evaluation in 2008/09. The number of service evaluation projects continues to increase. The programme included participation in 3 national projects in collaboration with staff from other Directorates.

Some examples of change in practice from completed projects are:

- Diet Sheet Audit. This was undertaken to ensure that all patient information produced by the Dietetic Department complied with Trust standards. Results have been used to raise awareness of these standards and to introduce a regular review process prioritising updating of diet sheets to the reduce risk of inaccurate information being given to patients
- Service Evaluation of WPH Out Patient Dietetic Services. The Dietetic Service traditionally provided an on call service for new referrals in the outpatient setting and whether the patient was seen at time of referral or next appointment at WPH depended on availability of a dietitian at the time. Patients for follow-up reviews were seen as they attended clinic or chemotherapy. There had been an increase in the number of outpatient referrals to the dietetic team which initiated a review of the current input and issues affecting patient care. As a result of the findings which indicated when would be the best time to provide cover it is proposed to make changes to the service and have regular clinic sessions on 4 days for the out patient services. This will ensure the service is more responsive to patient need and enable dietitians to effectively manage their time.

- Medical Illustration Patient Satisfaction Survey. A patient survey was conducted for patients who had undergone clinical photography procedures in Medical Illustration to identify patients perceptions of the service.

Emergency Care

Acute Medicine

Number of Projects Registered (2008/2009)	31
Number of Audit Projects	11
Number Of Service Evaluation Projects	8
Number of Audit and Service Evaluation Projects	11*
Number Current	25
Number Complete	5

* Joint project with Accident & Emergency

Audit of in-patient prescription & administration cards in Elderly care: Immediate Feedback

Clinical risk issues were identified from poor prescribing practices, especially with supplementary drug charts. A targeted audit was undertaken in Older Peoples Services to ascertain the current scale of the problem. Where poor prescribing practice was found, individual prescribers' were identified, and feedback given via their Consultant. The aim of this audit was to take the responsibility for good prescribing practice back to junior doctors and their Consultants. Matrons and Ward Managers also received immediate feedback for any drug administration or documentation errors identified during the audit.
Data was collected in three stages:

- July to August 2008
- September to October 2008
- November to December 2008

The audit standards measured were taken from The Medicines Management Code (STHFT, 2007).

Results:
It was noted during the audit that there was an improvement in compliance with many of the standards and a change in practice was observed. For example; at the beginning of the audit 67% (6/9) of supplementary prescription charts were referenced in line with the Medicine Code (2007). Compliance with this standard increased to 100% (15/15) at the end of the audit. The audit was a success because it was seen as an educational tool to improve practice and safeguard patients. The practice of immediate feedback was received well. The audit has highlighted where further work is required too e.g. recording the reason for an omission of a medicine on the omitted doses panel.

Consequently all junior doctors now complete the STHFT Inpatient prescribing eLearning package. Newly qualified nurses are required to complete the STHFT Inpatient drug administration eLearning package. Nurses within Acute Medicine are also undertaking the drug administration eLearning package. The Ward manager or deputy of each ward does a daily spot check of random medicine administration cards, and gives immediate feedback to nursing staff.

Accident & Emergency

Number of Projects Registered (2008/2009)	25
Number of Audit Projects	16*
Number Of Service Evaluation Projects	7
Number of Audit and Service Evaluation Projects	2**
Number Current	22
Number Complete	3

* Joint project with Medical Physics

** Joint project with Acute Medicine

Critical Care

Number of Projects Registered (2008/2009)	13
Number of Audit Projects	2
Number Of Service Evaluation Projects	8
Number of Audit and Service Evaluation Projects	3*
Number Current	9
Number Complete	3

* Shared project with Anaesthetics and Vascular Services

Anaesthetics & Operating Services

Number of Projects Registered (2008/2009)	25
Number of Audit Projects	11
Number Of Service Evaluation Projects	8
Number of Audit and Service Evaluation Projects	6*
Number Current	20
Number Complete	5

* Shared project with Critical Care and Vascular Services

Specialised Cancer, Medicine & Rehabilitation

Specialised Medicine

Number of Projects Registered (2008/2009)	41
Number of Audit Projects	23
Number Of Service Evaluation Projects	14
Number of Audit and Service Evaluation Projects	3
Number Current	33
Number Complete	8

Rheumatology

Service Evaluation – Mycophenalate

Background
Mycophenalate mofetil (MMF) is an immunosuppressive drug which has historically been used in transplant medicine. However its use in the management of vasculitis and other life threatening connective tissue diseases has attracted interest because of its improved efficacy and side effect profile over standard immunosuppressive treatment e.g. cyclophosphamide and azathioprine. MMF is however considerably more expensive e.g. £2500 vs. £250 for equivalent doses of azathioprine.

Baseline Service Evaluation
MMF was first used in the rheumatology department in 2003. An initial service evaluation of the 30 patients on MMF took place in October 2005. This confirmed the early clinical impression that MMF was effective and well tolerated up to 2 years. The 2005 annual spend on MMF was £52,000.

Repeat Service Evaluation
A reassessment of our use of MMF took place in May 2008. 55 patients ranging from 25 – 87 years of age were identified as having been treated with MMF since 2003. MMF was started because of a failure to respond to one or more standard treatments in 83% of patients. The majority of patients were being treated for vasculitis (18) and SLE (13) although when compared with 2005 MMF was increasingly being used to treat scleroderma (8 vs 1). Only 4 patients had had to stop treatment (1 non specific side effects, 3 inefficacy). The 2008 annual spend on MMF was £142,000.

Conclusion
Mycophenalate mofetil is a well tolerated and efficacious treatment for serious multisystem rheumatic disease. This is being reflected by its increasing use as a 1st line treatment and expanding indications for starting treatment. The increased cost of prescribing MMF needs to be considered against reduced spending with improved disease control and fewer treatment complications.

Communicable Diseases

Number of Projects Registered (2008/2009)	25
Number of Audit Projects	15
Number Of Service Evaluation Projects	7
Number of Audit and Service Evaluation Projects	3
Number Current	17
Number Complete	8

Audit of Adherence to NICE Guidance relating to Behavioural Risk Reduction in Sexually Transmitted Infections

NICE guidance from 2007 is that a structured 15-20 minute discussion, based on the theory of behaviour change, should be offered to all patients at risk of a sexually transmitted infection (STI), or under 18 conceptions. Preparation included 3 hours training in Motivational Interviewing (MI) for health advisers, to whom patients were referred for risk reduction, followed by individual supervision from a clinical psychologist over 2 months.

Case notes were reviewed for evidence of risk reduction discussions and use of MI. 67 patients interviewed by health advisers were considered to be at risk / eligible for structured discussion. Condoms discussion (risk reduction) was documented for 58/67 (86.6%), evidence of in-depth discussion was recorded for 17/67 (25.4%), but only 2/17 suggested MI had been used.

The audit highlighted the difficulty in identifying from documentation in the notes, whether MI had been used. Other contributory factors included lack of time, focus on partner notification or other priorities and telephone interviews which were unsuitable for MI. As a result of this audit, health advisers are receiving further training in MI and a pro forma has been devised to standardise documentation. This should make it much easier to recognise a MI discussion from the notes, when the audit is repeated in autumn 2009.

Oncology

Number of Projects Registered (2008/2009)	14
Number of Audit Projects	4
Number Of Service Evaluation Projects	8
Number of Audit and Service Evaluation Projects	2
Number Current	12
Number Complete	2

South Yorkshire Regional Services

Cardiothoracic

Number of Projects Registered (2008/2009)	20
Number of Audit Projects	5
Number Of Service Evaluation Projects	12
Number of Audit and Service Evaluation Projects	3
Number Current	18
Number Complete	2

Audit of Chest X-ray requests in preadmission clinic

The audit showed that a large percentage of patients had had Chest X-rays within the last 6 months. Based on these findings we have changed the policy for Chest X-ray request. Now if a patient has a Chest X-ray on the Picture Archiving and Communications System (PACS) taken in the last 6 months, a new one is not requested unless there has been a change in their clinical symptoms. No re-audit done yet.

Audit of timing of first aspirin dose after coronary artery bypass surgery.

This showed that a percentage of patients were not being given their first dose of aspirin within the required 6 hours despite the fact that it had been prescribed and despite the lack of any contraindications. All the nurses on Coronary Intensive Care Unit (CICU) have been made aware of the importance of timing and the protocol for aspirin dosing after Coronary Artery Bypass Graft (CABG). A re-audit will be performed.

Vascular Services

Number of Projects Registered (2008/2009)	1
Number of Audit Projects	0
Number Of Service Evaluation Projects	0
Number of Audit and Service Evaluation Projects	1*
Number Current	1
Number Complete	0

* Shared project with Anaesthetics and Critical Care

Sheffield Kidney Institute

Number of Projects Registered (2008/2009)	9
Number of Audit Projects	2
Number Of Service Evaluation Projects	6
Number of Audit and Service Evaluation Projects	1
Number Current	6
Number Complete	3

Detecting early foot problems in patients with diabetes with kidney failure.

Foot problems are common in people with diabetes and can lead to amputation of the leg. The risk of foot problems goes up when diabetic people have kidney failure.

A check list was put in place to help staff:

- check the patients' feet when they came for treatment on a kidney machine.
- make sure they were seeing a chiropodist regularly
- teach the patients about looking after their feet

This project was to make sure that the check list was being used properly and was easy to use. It was found that the check list was easy to use and no changes were needed. However, staff did ask for more teaching on caring for the patient with foot problems. Teaching was arranged for all staff and more guidelines were written to help staff look for early foot problems and to know what to do when a problem was found. The project also led to better links between staff at SKI, the diabetes centre and the chiropodists. In the future an audit will be carried out to ensure that the teaching and further guidelines have improved the monitoring of foot problems

Diagnostic & Therapy Services

Laboratory Medicine

Number of Projects Registered (2008/2009)	25
Number of Audit Projects	8
Number Of Service Evaluation Projects	15
Number of Audit and Service Evaluation Projects	2
Number Current	18
Number Complete	7

Medical Imaging & Medical Physics

Number of Projects Registered (2008/2009)	5
Number of Audit Projects	3*
Number Of Service Evaluation Projects	2**
Number of Audit and Service Evaluation Projects	0
Number Current	5
Number Complete	0

* Joint project with Accident and Emergency

** Joint project with Neurosciences

Pharmacy & Medicines Management

Number of Projects Registered (2008/2009)	15
Number of Audit Projects	6
Number Of Service Evaluation Projects	7
Number of Audit and Service Evaluation Projects	2
Number Current	13
Number Complete	2

Head and Neck Services

Oral and Dental

Number of Projects Registered (2008/2009)	22
Number of Audit Projects	9
Number Of Service Evaluation Projects	10
Number of Audit and Service Evaluation Projects	3*
Number Current	18
Number Complete	4

* Joint project with ENT

Neurosciences

Number of Projects Registered (2008/2009)	17
Number of Audit Projects	1
Number Of Service Evaluation Projects	12*
Number of Audit and Service Evaluation Projects	4
Number Current	17
Number Complete	0

* Joint project with Medical Physics and Medical Imaging

Title: An audit of STHFT Medicines Administrations Standards

During October 2008 an audit of all drug charts on 8 wards within the STH Trust was undertaken the results collated by the Clinical Governance Pharmacist. The audit demonstrated 'poor compliance' with some of the Trust's standards for drug prescribing and administration documentation.

Aim

The aim of this project was to highlight any prescribing or administration documentation errors that may be occurring specifically within neurosciences. The objective being to ensure that medicine prescribing or administration errors are kept to a minimum and any omissions addressed promptly.

Methodology

The re-audit took place on two neuromedical wards (L1/L2) within the Royal Hallamshire Hospital between November 2008 and March 2009

Sampling method

Drug Charts were selected at random and the audit took place on either of the three shift patterns within a 24-hour period.

Results

Within the 'Once only' medications and 'when required' medications sections of the chart there were no significant concerns, although legibility of documentation was an issue.

All of infusion records were complete in so much as they stated times of commencement and the volume infused.

Where controlled drugs were prescribed and administered, the controlled drug register had been countersigned in all cases.

This audit confirmed however that the following remained problematic.

- The recording of omitted medicines using the approved codes
- The countersigning of infusions and recording the batch number
- The recording of the infusion pump numbers

These issues have been fed back to staff through ward meetings/forums and good practice re-enforced. The audit data continues to be collected daily and will be summarised again soon in order to establish whether practice has improved following the implementation of good practice measures.

Neurology

Would you like to know more about Motor Neurone Disease (MND)?

The project aimed to identify any gaps in knowledge and understanding regarding current research into MND and to identify if there is a need for training or awareness raising sessions in this area. It was aimed towards ward based staff; Sisters, Staff Nurses, Healthcare Assistants, Apprentices, and Allied Health Professionals were all invited to take part.

The Data was collected using a questionnaire that was distributed to the Neurology wards L1 and L2, and as a comparison ward EAU staff at the Royal Hallamshire Hospital were invited to take part. To gain a snapshot of the trust as a whole, members of the Evidence Based Council were given the opportunity to distribute it to staff working in their areas.

In Summary, out of the 81 people to respond to the Questionnaire throughout the trust 84% said they had cared for a person with MND and only 10% of these participants stated that they felt confident when looking after MND patients and were happy to pass on their knowledge to other members of staff. All of these carers were based in Neurology.

None of the respondents felt they were up to date and aware of current or future research studies.

50% of staff in Neurology and 56% of staff overall had not heard of any of the research studies listed in the questionnaire.

96% of staff in Neurology said they wished to know more about research into MND and quite interestingly 58% of participants identified through the Trust Evidence Based Council said they would also like to know more about research into MND.

The top 3 most popular subjects surrounding the care of people with MND that participants wished to know more about were:

- Psychological Support
- Issues around the end of Life
- Disease progression

The top 3 most popular subjects surrounding research into MND were:

- Genetic causes
- Drugs used to lengthen life expectancy
- The MND DNA Bank

The top 3 most popular methods of learning about MND would be through:

- Study Sessions
- Resource files on the ward
- Quarterly Newsletter

This project has highlighted a willingness from ward based staff to expand their knowledge surrounding care issues and research into MND not only in Neurology but also throughout the trust.
It is hoped that this project will help us in organising the content of a study day that all staff within the trust could be invited to access as well as developing other tools to promote MND and improve the care and access to research that these patients receive.

ENT

Number of Projects Registered (2008/2009)	10
Number of Audit Projects	5
Number Of Service Evaluation Projects	3
Number of Audit and Service Evaluation Projects	2*
Number Current	10
Number Complete	0

* joint project with oral and maxillofacial surgery

Ophthalmology

Number of Projects Registered (2008/2009)	7
Number of Audit Projects	2
Number Of Service Evaluation Projects	2
Number of Audit and Service Evaluation Projects	3
Number Current	5
Number Complete	2

Surgical Services

General Surgery

Number of Projects Registered (2008/2009)	25
Number of Audit Projects	6
Number Of Service Evaluation Projects	18
Number of Audit and Service Evaluation Projects	1
Number Current	23
Number Complete	2

Orthopaedics

Number of Projects Registered (2008/2009)	24
Number of Audit Projects	5
Number Of Service Evaluation Projects	17
Number of Audit and Service Evaluation Projects	2
Number Current	17
Number Complete	7

Plastic Surgery

Number of Projects Registered (2008/2009)	1
Number of Audit Projects	1
Number Of Service Evaluation Projects	0
Number of Audit and Service Evaluation Projects	0
Number Current	1
Number Complete	0

Obstetrics, Gynaecology Neonatology & Urology

The Clinical Effectiveness Unit (CEU) has provided an excellent support to the Obstetrics and Gynaecology audit service. More than 40 clinical audits and service reviews were planned for 2008-2009. These included commissioned audits and

Number of Projects Registered (2008/2009)	49
Number of Audit Projects	25
Number Of Service Evaluation Projects	18
Number of Audit and Service Evaluation Projects	6
Number Current	34
Number Complete	15

our department's priority audits and service reviews.

Assessment of risk factors for venous thromboembolism (VTE) in pregnancy and puerperium

The audit aimed to find out how many women with VTE in pregnancy had risk factors for it and to see whether they were assessed and managed appropriately during pregnancy and the first few weeks after giving birth (the puerperium).
Risk factors were well documented at the booking visit (83.3%), however the identification, documentation and management of temporary risk factors arising during pregnancy and delivery was found to be inadequate in most cases.

This audit has attracted a lot of discussions and led to an agreement to implement risk assessment criteria for obstetrics, in line with the trust wide policy on risk assessment for thromboembolism for all branches of medical and surgical units. As a result of this audit Miss Fairlie and Dr Maclean designed risk assessment criteria for obstetrics

Prophylactic Indomethacin

An audit of the use of prophylactic indomethacin at the Jessop Wing was carried out. Prophylactic indomethacin is connected with reducing the rate of major intraventricular bleeding in preterm infants. It is recommended to give indomethacin to all infants born less than 26 weeks gestation by 6 hours of age; it should also be considered for males born at 26 and 27 weeks gestation.

56 patient records were audited. From these it was found that 70% of the eligible babies received indomethacin, of this only 54% received it within the recommended time. 0% of the babies who did not receive indomethacin had the reason why documented. 62% of those on indomethacin had 12 hourly electrolytes measured. If the course of indomethacin did not get completed the reason why was not documented 87% of the time. The project lead to an increased awareness of indomethacin amongst staff at the Jessop Wing. The idea to change the current guidelines was also put forward. A re-audit is planned to take place in the next twelve months.

Urology

Number of Projects Registered (2008/2009)	7
Number of Audit Projects	3
Number Of Service Evaluation Projects	4
Number of Audit and Service Evaluation Projects	0
Number Current	7
Number Complete	0

Commissioned Audit Summary Table 08/09				
Nice No.	**New NICE Audits for 2008/09**	**Project Leads**	**Lead Directorate/Specialty**	**Project Status**
TA 134	Psoriasis - infliximab		Dermatology	No audit required. - position statement to go to audit commissioners. Completed
TA135	Mesothelioma - permetrexed disodium	Paula Johnson	Oncology	Data collected on only 4 patients and summary produced and submitted to CEU who will follow up accordingly due to small sample size.
TA 136	Atypical psychosis (first onset) - neuro-imaging		Neurosurgery	Position statement to be put into place as no impact on STH service - no audit required. Completed
TA 138	Asthma (in adults) - corticosteroids		Respiratory Medicine	Follow BTA Guidelines which align with NICE guidelines - no audit. No audit required as already follow BTS guidelines which are mirrored in the NICE CG - Position statement only required.
TA139	Sleep apnoea - continuous positive airways pressure (CPAP)	Kitty Bywaters	Respiratory Medicine	Current audit of the length of time to referral. Clinical compliance with NICE guidelines demonstrated via existence of local protocol though further audit planned.
TA143	Ankylosing Spondylitis - adalimumab, etanercept and infliximab	Paula Johnson	Rheumatology	Project completed for directorate presentation in Dec 08. Report awaited.
TA 147	Breast Cancer (advanced and metastatic) - bevacizumab		Cancer Services	Suspended June 2008. Appraisal terminated by NICE as no evidence submitted. No action required.
TA 148	Lung Cancer (non-small cell) - bevacizumab		Cancer Services	Suspended June 2008. Appraisal terminated by NICE as no evidence submitted. No action required.
TA 149	Glioma (recurrent) - carmustine implants		Cancer Services	Appraisal terminated by NICE
TA151	Diabetes - insulin pump therapy	Eleanor Clewes	Acute Medicine	Project registered in March 2009 and Diabetes Specialist Nurse planning to start data collection imminently.
TA152	Coronary Artery Disease - drug eluting stents	Enid Wadsworth	Cardiothoracic	Guidelines issued in July 2008. Audit planned and registered in March 2009. To roll over to 09/10 programme.
TA153	Hepatitis B - Entacavir	Paula Johnson	Infectious Diseases	Please see commissioned audit summary for Hepatitis B audit.

TA156	Pregnancy (rhesus negative women) routine Anti - D (review)	Hannah Constantine	Obstetrics	Anti D changes are yet to be introduced into the Jessop Wing due to a delay with the ratification of the Patient Group Direction. To roll over to 09/10 programme.
TA159	Pain (chronic neuropathic or ischaemic) - spinal cord stimulation	Paula Johnson	Anaesthesia	Data collected and analysed and report and recommendations awaited.
TA160 & TA161	Osteoporosis	Louise Chopra	Metabolic Bone	Implementation of guidelines is being discussed at local and national level - to roll over to 09/10 programme.
TA162	Lung cancer (non-small cell) - erlotinib	Paula Johnson	Cancer Services	Released November 08 and meeting held with Lead Clinician in January 2009. Local guidelines are being adapted to include NICE recommendations. Audit planned for 6 months.
TA164	Hyperuricaemia - Febuxostat	Paula Johnson	Rheumatology	Released December 08. NICE recommends use if intolerance to allopurinol - as yet use of febuxostat has not been required - position statement to be drafted.
TA165	Organ preservation (renal) - machine perfusion and static storage	Janet Turner	Renal	Guidance applicable to STHFT and clinical lead indicates full compliance demonstrated by local protocol and therefore no audit required at this stage.
TA166	Hearing impairment - cochlear implants	Hannah Constantine	ENT	In the process of requesting designation from the SCG to undertake cochlear implants in Sheffield, currently offer a partial service only - assessment and rehabilitation, surgery undertaken at Nottingham or Bradford.
TA167	Abdominal aortic aneurysm - endovascular stent-grafts	Enid Wadsworth	Vascular Services	Guidance released in February '09. To roll over to 09/10 programme.
CG61	Irritable Bowel Syndrome	Kitty Bywaters	PCT/Gastroenterology	This is a PCT audit, currently being carried out by Sheffield PCT. Discussed with PCT and more appropriate for them.
CG62	Antenatal Care	Hannah Constantine	Obstetrics	Audit of the antenatal appointment aspect of the guideline has been completed with recommendations to consider the possibility of transferring some of the time spent undertaking antenatal visits into the postnatal visiting schedule. The 'combined' test to screen for Down's syndrome had not yet been implemented at the Jessop Wing. An audit is planned in the next year following the implementation of the 'combined test'.
CG63	Diabetes in pregnancy	Louise Chopra	Obstetrics	Project complete - see appendix 1 for commissioned audit summary

CG64	Prophylaxis against infective endocarditis	Kitty Bywaters	Microbiology	A document incorporating NICE guidance has been drawn up and placed on the Trust's intranet. Paediatric Dentistry are currently auditing the Children's' services and plan to audit adult dentistry at a later date. To roll over to 09/10 programme.
CG65	Perioperative hyperthermia (inadvertent)	Sue Cross / Eleanor Clewes	Anaesthetics & Operating Services	Project complete - see appendix 1 for commissioned audit summary
CG66	Diabetes - Type 2 (update)	Kitty Bywaters	Acute Medicine	Audit of this guideline is not a priority at present, intend to undertake audit once the guideline has been in place long enough (approximately 12-15 months).
CG68	Stroke	Jean Schofield / Kitty Bywaters	Neurosciences	Compliance with key recommendations evidenced via the National Sentinel Stroke Audit. Project registered to examine the carotid endarterectomy section of the guideline and this will roll over to 09/10 programme.
CG70	Induction of Labour (update of guideline D)	Hannah Constantine	Obstetrics	Data collection has been completed, analysis and report writing is underway at present.
CG71	Familial hypercholesterolaemia	Kitty Bywaters	Clinical Chemistry	Implementation of guidelines is being discussed and no audit scheduled for this year - to roll over to 09/10 programme.
CG73	Chronic Kidney Disease	Kitty Bywaters	Renal	The recommendations from the NICE clinical guidelines are mostly adopted as they are not very different from the UK Chronic Kidney Disease guidelines. Discussions ongoing on some aspects. Roll over to 09/10 programme.
CG74	Surgical site infection	Janet Jenkins	Infection control	Implementation of this guideline under discussion. Roll over to 09/10 programme for audit.
CG75	Metastatic Spinal Cord Compression	Paula Johnson	Neurology / Orthopaedics / Weston Park Hospital/ Palliative Medicine	WPH is compliant with a number of recommendations and intend to audit the care pathway. Locally adapted guideline to be presented to the Cancer Board in Summer 2009 and timing of future audit to be finalised.
Suspended	Osteoporosis		Metabolic Bone	Suspended, awaiting announcement on release since May 2008

Nice No.	Follow up NICE Audits from 2007/2008	Project Leads	Lead Directorate/Specialty	Project Status
TA96	Hepatitis B (chronic): adefovir, dipivoxol and pegylated interferon alpha-2a	Paula Johnson	Infectious Diseases	Project complete - see appendix 1 for commissioned audit summary
TA104	Psoriatic arthritis - enanercept and infliximab	Paula Johnson	Rheumatology	Project complete - see appendix 1 for commissioned audit summary
TA120	Heart Failure - biventricular pacing (cardiac resynchronisation)	Janet Turner / Enid Wadsworth	Cardiology	Project method being reworked to ensure appropriate sample for study. Plan for audit to begin in June 2009. To roll over to 09/10 programme.
TA129	Multiple myeloma - bortezomib	Paula Johnson	Haematology	Delay in starting project due to staff resources. Data collection now underway. Roll over to 09/10 programme.
TA130	Rheumatoid arthritis - adalimumab, etanercept and infliximab	Paula Johnson	Rheumatology	Project complete - see appendix 1 for commissioned audit summary
CG32	Nutritional Support in adults: oral nutrition support, enteral tube feeding and parenteral nutrition	Jean Schofield	Trust-wide & joint with primary care	No audit has taken place this year as recommendations from previous audits are being implemented. The Nutrition Steering Group will consider future audit when appropriate.
CG44	Heavy Menstrual Bleeding	Louise Chopra	Gynaecology	Project complete - see appendix 1 for commissioned audit summary
CG46	Venous thromboembolism	Janet Jenkins	Trust wide	Project complete - see appendix 1 for commissioned audit summary
CG48	MI Secondary prevention	Louise Chopra	Cardiology	Audit data already collected for some of the standards (e.g. clopidogrel and statins audits). Mapping exercise underway to identify any gaps that may require audit.
CG49	Faecal incontinence	Louise Chopra	Colorectal	Colorectal service is being developed to ensure provision of a quality service that will meet the recommendations of NICE hence no audit has taken place this year - to roll over to 09/10 programme.
CG50	Acutely ill patients in hospital	Kitty Bywaters / Jean Schofield	Trust wide	Relevant recommendations have been included within the Trust wide record keeping audit which consists of quarterly audits in each directorate.

CG55	Intrapartum care	Hannah Constantine	Obstetrics	The NICE Intrapartum Guidelines (2007) generated four audits during 2007/2008: 'Audit of management of retained placentas', 'Management of intrapartum abnormal CTG', 'Women's choice and control during childbirth (re-audit of RCM (2005) guidelines)', and 'Intrapartum transfer of patients from midwifery led care and community care to consultant led care'. The audit of women's choice and control during childbirth is included in appendix 1 commissioned audit summaries. For more information on the other projects contact the Clinical Effectiveness Unit.
CG56	Head injury (partial update of CG4)	Sue Cross	STH A&E, STH Radiology, Yorkshire Ambulance Service & SCH A&E	Project complete - see appendix 1 for commissioned audit summary
III. NSF / HC / Other National Audits		**Project Leads**	**Lead Directorate/Specialty**	**Project Status**
	NSF for Older People			
	Dementia/Depression	Jean Schofield Louise Chopra	Acute Medicine	Sheffield dementia/depression protocols are being revised and audit is planned for 09/10.
	NSF for Long Term Conditions			
	National Audit of Services for People with Multiple Sclerosis, 2008	Jean Schofield	Neurology	Project complete - see appendix 1 for commissioned audit summary
	NCAPOP			
	Cancer			
	Bowel Cancer (NBOCAP)	Jean Schofield	Colorectal	Continuous data collection / submission, awaiting report.
	Head and Neck Cancer (DAHNO)	Jean Schofield	Oral & Dental/ENT	Continuous data collection / submission, awaiting report
	National Lung Cancer Audit (NLCA)	Jean Schofield	Acute Medicine	Continuous data collection / submission, awaiting report
	Oesophago-gastric (stomach) cancer	Jean Schofield	General Surgery	Continuous data collection / submission, awaiting report
	Mastectomy and breast reconstruction	Jean Schofield	General Surgery	Continuous data collection / submission, awaiting report

	Child and Maternity			
	National Neonatal Audit Programme (NNAP)	Rosalie Havik	Neonatology	NNAP data have been collected by all the hospitals of the North Trent Neonatal Network (NTNN) and have been published in an annual report. Regional NNAP data have been compared against national statistics published by NNAP. From January 1st 2009 data collected in the Manners database used in the NTNN has been uploaded into the SEND system used by NNAP and will be incorporated into the first quarterly NNAP report which is expected to be published in May 2009.
	Heart			
	Adult Cardiac Surgery	Janet Brain	Cardiothoracic	National priority. Compliant – submitting data routinely.
	Coronary interventions (eg,angioplasty, opening up heart artery)	Janet Brain	Cardiothoracic	National priority. Compliant – submitting data routinely
	Myocardial Infarction (MINAP)	Janet Brain	Cardiothoracic	National priority. Compliant – submitting data routinely. Validation exercise completed to deadline. Data quality >90% target on key fields. Annual submission deadline 31st May 2009 preceding report due in Summer 2009.
	Heart Rhythm Management (pacing/implantable defibrillators)	Janet Brain	Cardiothoracic	National priority. Compliant – submitting data routinely
	Heart Failure	Janet Brain	Cardiothoracic	Ongoing data collection, submitting data routinely
	Long Term Conditions			
	Diabetes	Jean Schofield	Acute Medicine	Continuous data collection - submission Sept 08. National report due June 09.
	National Joint Registry	Sue Cross / Jean Schofield	Orthopaedics	Registered and participating. National report available.
	Older People			
	Stroke: hospital services (National Sentinel Stroke Audit)	Jean Schofield	Acute Medicine / Neurosciences	Project complete- see appendix 1 for commissioned audit summary.
	Carotid endarterectomy (UKCEA) *(preventing stroke)*	Jean Schofield	Vascular	Continuous data collection. Report due 09/10
	Services for people who have fallen	Jean Schofield	Emergency Care, Orthopaedics ,Acute Medicine, Metabolic Bone	National and local organisational audit results received. Sheffield-wide draft action plan under development.

	Other National Guidance			
	CEMACH			
	"Why mothers die "Pre-eclampsia, eclampsia	Louise Chopra	Obstetrics & Gynaecology	Project complete - see appendix 1 for commissioned audit summary
	Saving Mothers' Lives - top ten recommendations	Louise Chopra	Obstetrics & Gynaecology	Project complete - see appendix 1 for commissioned audit summary
	NCEPOD			
	Emergency Admissions: A journey in the right direction	Kitty Bywaters/Janet Jenkins	Trust-wide	NCEPOD recommendations were reviewed and relevant issues from this report included in Record Keeping audit below. Electronic audit tools have been modified to incorporate recommendations.
	NHSLA			
	NHSLA - Record Keeping (as per standard 4)	Chris Morley / Janet Jenkins	Trust-wide	Medical records audit is conducted quarterly by directorates and results are reported via local clinical governance mechanisms. A trust-wide audit of nursing record keeping has taken place with 62 ward areas participating. AHP records audit undertaken annually. Reports produced annually.
	NPSA			
	Alert 18 - Anticoagulants	Louise Chopra	Haematology	Project Complete - see appendix one for commissioned audit summary. A larger audit suggested. Follow up with Consultant Lead (to be negotiated as part of directorate audit programme for 2009/10).
	Alert 19 - Wrong route (confusion of intravenous and oral medication)	Janet Jenkins	Supplies	Formal clinical audit not required. Data will be provided from CAT to contribute to position statement. Quarterly Medicine Management Checklist incorporated into the 08/09 revised CAT launched June 08. Overall findings from the Checklist will be available at the end of the CAT year for 2008/09 in April 09. Data from CAT being compiled for position statement.

	Alert 20 - Errors in the preparation and administration of injected medicines in near-patient areas	Janet Jenkins	Pharmacy	Originally formal clinical audit not required although piece of work identified and completed with good compliance. Quarterly Medicine Management Checklist incorporated into the 08/09 revised Clinical Assurance Toolkit (CAT) launched June 08 and is part of the Performance Managed programme for Pharmacy for 08/09. Re-audit registered in December and data from CAT being compiled for position statement.
	Alert 21 - Epidural and spinal injections	Janet Brain	Anaesthetics / Pharmacy	Monitored via DATIX and Quarterly Medicine Management Checklist incorporated into the 08/09 revised CAT launched June 08 and is part of the Performance Managed programme for Pharmacy for 08/09. A position statement will be produced. Overall findings from the Checklist will be available at the end of the CAT year for 2008/09 in April 09. Data from CAT being compiled for position statement
	Alert 22 - Hypotonic infusions of glucose/saline mixtures in paediatrics	Rosalie Havik	Neonatology	No clinical audit project is required for this alert. The Clinical Project Lead has undertaken a scoping exercise to see where this alert would apply to STHFT and has concluded that this is only very rarely relevant and only one location where these fluids might be used. There is a dedicated trolley (separate from the adult fluids) with all the paediatric kit on it. This includes a drawer specifically for fluids to be used in children. A flow chart has been designed for on top of the trolley, along with the resus flow chart that is already there. No further action required. Completed
	Department of Health/HPA			
	Infection Control Mandatory Surveillance	Janet Jenkins	Trust-wide / Nursing	This has been incorporated within the STH Infection Control Accreditation programme.

Appendix 1

Title: Audit on the management of gestational diabetes (GDM)

Lead Clinician(s): Dr Mona Fawzy, Mr Tom Farrell

Work undertaken by: Dr Preeti Gandhi

Lead from CEU: Louise Chopra

Aims and Objectives:

The incidence of diabetes in pregnancy is 1:250 and it is the most common medical disorder with pregnancy. Since St Vincent declaration 1989, we have been trying to improve the care given to the patient to have outcomes comparable to the non-diabetic patient.
This audit aims to review compliance with our local guidelines and recommendations from the Confidential Enquiry into Maternal and Child Health (CEMACH). New NICE guidance also issued February '08 and recommendations from this have been built into the audit.

Audit Standards and results:

Standard	% Compliance
1. 100% of patients with GDM should be managed by a multidisciplinary team	98%
2. 100% of patients with GDM should have a documented plan of management in the notes	95.9%
3. 100% of patients with GDM should have fetal biometry scan at 30 and 37 weeks	95.7%
4. 100% of patients should have intrapartum monitoring	100%
5. There should be a sliding scale in labour for patient on insulin during pregnancy	100%
6. 100% of patients with GDM should have advice for the next pregnancy	54.3%
7. 100% of patients should have contraceptive advice	87.5%
8. Patients with GDM should be offered postnatal glucose tolerance test (GTT) at 5 weeks	94%

Methods:
The case notes of women who delivered between Jan 07-Jan 08 were investigated and entered onto a database for analysis. Results were disseminated to stakeholders and via a Registrars meeting in July 2008.

Conclusions:
Compliance with guidelines was generally high for management of current pregnancy. The advice given to women for next pregnancy needs improving.

Recommendations:

Recommendation	Action
1. Increase the patient's awareness of the importance of compliance with postnatal GTT during pregnancy	- Letter to GP - Patient information leaflet
2. Postnatal lifestyle advice (NICE, 2008) and advice for next pregnancy	- Patient information leaflet
3. Postnatal contraceptive advice needs improvement	- Advice during pregnancy - Designing a stamp to be used at postnatal discharge to check that the contraception and advice for next pregnancy have been discussed
4. Re-audit in 1 year	

Title: An Audit of the NICE Head Injury Guidelines (Clinical Guideline 56)

Lead Clinician(s): Shammi Ramlakhan, Consultant in Emergency Medicine, Hasan Qayyam, Specialist Registrar and Sue Cross, Clinical Audit Lead

Work undertaken by: Shammi Ramlakhan, Consultant in Emergency Medicine, Hasan Qayyam, Specialist Registrar and Sue Cross, Clinical Audit Lead, Sarah Heikal, SHO, Dan Clarke, ED Charge Nurse, Sarah Appleby, Senior Radiographer

Lead from CEU: Sue Cross

Aims and Objectives: To measure compliance with the agreed standards in all HI patients, to determine the level of discharge information provided, to compare any equivalent results from the previous audit to determine and level of improvement and to identify and address any area of concern identified.

Methods: A retrospective case note audit was undertaken using an interval sample of all HI patients attending the ED during the first two weeks in January 2008. 97 patients met the criteria for inclusion. Data collection was undertaken by medical, radiology and nursing staff. Data entry was conducted on Microsoft (MS) Access and analysis on MS Excel.

Audit Standards and Key Results:

Standards (all set at 100%)	Compliance (%)
Standard 1: 100% of pre-hospital patients who have sustained a head injury and present with any of the above risk factors will have full c-spine immobilisation.	52.9% (9/17)
Standard 2.1: Assessed by a trained member of staff	100% (97/97)
Standard 2.2: Assessed within 15 minutes of arrival	71.1% (69/97)
Standard 2.3: Will have a pain score documented	14.4% (14/97)
Standard 2.4: Will have a analgesia offered (if applicable)	21.4%* (3/14)
Standard 2.5: Will have minimum observations documented	36.1% (35/97)
% with GCS documented	86.6% (84/97)
% with pupil size and reactivity documented	80.4% (78/97)
% with limb movements documented	64.9% (63/97)
% with respiratory rate documented	66% (64/97)
% with heart rate documented	77.3% (75/97)
% with blood pressure documented	72.2% (70/97)
% with temperature documented	54.6% (53/97)
% with blood oxygen saturation documented	74.2% (72/97)
Standard 3.1: 100% of CT brain scans will be performed within one hour of request to Radiology Department if a CT is requested due to a HI patient having one of the above risk factors	63.2% (12/19)
Standard 3.2: 100% of CT brain scans will be reported within one hour of request to Radiology Department if a CT is requested due to a HI patient having one of the above	75% (9/12)
Standard 4.1: A CT brain scan will be performed within 8 hours of the injury for patients with any of the risk factors listed above, but none of the risk factors listed in local criteria 3:	55.5% (5/9)
Standard 4.2: A CT brain scan will be reported within 8 hours of the injury for patients with any of the risk factors listed above, but none of the risk factors listed in local criteria 3:	40% (2/5)
Standard 5.1: CT imaging of the cervical spine will be carried out simultaneously with an urgent CT brain scan.	23.8% (5/21)
Standard 5.2: CT imaging of the cervical spine will be performed within the hour of the request being received	100% (5/5)
Standard 5.2: CT imaging of the cervical spine will be reported within the hour of the request being received	100% (5/5)
Standard 6.1: The Neurosurgeon will be consulted if any new surgically significant abnormalities on imaging are identified or for any other reason stated above	100% (7/7)
Standard 6.2: The time of discussion with the Neurosurgeon will be documented on the ED card	100% (7/7)

Standard 6.2: The time of Neurosurgeon's response will be documented on the ED card (if applicable)	71.4% (5/7)
Standard 7: All HI patients with multiple injuries admitted to the admitted under the care of the team that is trained to deal with their most severe and urgent problem (1.5.3)	100% (1/1) Only one HI patient admitted to GITU had multiple injuries therefore compliance with standard was 100%
Standard 8: In circumstances where HI patients require a hospital admission, all patients will be admitted under the care of a team led by a consultant who has been trained in the management of head injuries during his/her higher training	85.3% (29/34)
Standard 9: For consultant teams that treat head-injured patients: Percentage of teams with competence (defined by local agreement with the neuroscience unit) in the indications for transfer to a neuroscience unit (see recommendations in 1.6)	The audit identified 2 patients that were transferred direct to Neurosurgery from ED
Standard 10: All patients admitted for head injury observation will have the minimum acceptable documented observations	55% (11/20)
Standard 11: All patients and/or their carers will be made aware of the possibility of long-term symptoms and disabilities following head injury by the provision of verbal information, head injury advice card or leaflet regarding their head injury	71.1% (69/97)

Limitations:
A significant number of patients included in this audit are documented as being violent, aggressive or refusing all treatments. This may limit both pre-hospital and emergency department care, and should be considered when interpreting the results. Current CT request forms do not require the time of request to be documented on the card, therefore compliance with times from request to scan and request to report may be falsely low.

Conclusions/Recommendations:

- To improve the management of pain in the ED
- To review the use of Skull x-ray in preference to CT brain scan in ED
- Improve Documentation e.g. time of response from Neurosurgeon
- Ensure that HI patients have the required minimum observations undertaken in ED and H4
- Ensure that CT C-Spine is done simultaneously with urgent CT brain scan
- Head Injury advice information is provided to all patients/carers either on discharge or transfer from the ED
- Focus on new NICE head injury guidelines in recent College exams. Updating the ED SHO handbook in accordance with NICE document
- Incorporate a session on head injury management during trainee induction
- Increasing awareness of head injury management for YAS and Allied Services e.g. Radiology, Neurosurgery
- To re-audit following implementation of recommendations

Title: Re-Audit of the Surgical Treatment of Women with Heavy Menstrual Bleeding (HMB)

Lead Clinician(s): Dr Karen Moores, Mr Andrew Baxter

Lead from CEU: Tina Belton, Louise Chopra

Aims and Objectives:

To re-audit and assess current practice on management of HMB in Primary Care against the criteria used in the 2004 audit. To determine current practice on surgical management of HMB in Secondary Care to ascertain whether a change in practice has occurred since the 2004 audit recommendations

Audit Standards and Results:

The audit was based on the measurement of 6 criteria and 15 standards from NICE CG44: Heavy Menstrual Bleeding. Some key results are discussed below:

Standard	% compliance (2004 Audit)	% compliance (2008 audit)
100% of women should receive 3 months of medical treatment prior to surgery for HMB	70%	81%
100% of women are offered endometrial ablation prior to hysterectomy	70%	68%

The issue of appropriate documentation of discussions with women regarding treatment and risks and benefits was considered in both audits. In 2004 the standard of documentation varied, with only 5% of the audit sample having discussions fully documented. In 2008 this was looked at in more detail and results were broken down into documentation of specific risks of treatment. Again the percentage of women in the audit who had documented discussion of specific risks and unwanted outcomes was very low.
The results in the full audit report are broken down into women who were treated for management of HMB in primary care and those who received medical management in secondary care.

Methods:
The target population for this audit were women with HMB who underwent surgical treatment. The anticipated sample size was 100 women. Inclusion criteria included women who underwent surgical treatment for HMB at the Royal Hallamshire Hospital between 1st June and 31st August 2007. A total of 124 patients were identified. Patients were identified from the Trusts' coding system. Therefore the study population was 108 women; 2 women were excluded as they did not have HMB and 18 notes were not available.

Limitations:
There were several limitations of this audit. The most significant limitation encountered was that the original audit did not identify those women who had the offer of ablation documented in case notes. This problem was overcome by completing a further notes review of a random sample of 50 case notes, of which 44 notes were reviewed. The other main limitation was time constraints in terms of arranging meetings between the project team, and sufficient time for data collection and analyses.

Conclusions:
The audit in 2004 showed that NICE guidelines were not being adhered to well enough. Recommendations included informing GP's and hospital staff of guidelines and providing patients with information about HMB, with a view to a re-audit in the future. The 2008 audit showed recommendations for the surgical management of HMB are still not being fully met, although the percentage of women receiving 3 months of medical treatment prior to surgery has increased. Documentation of the counselling regarding management options for HMB is poor.

Recommendations:

Recommendation	Action	Timescale	Person responsible for implementation
Education (GP's & Colleagues)	Presentation of Audit Completion of Audit Report	July-Aug 2008	Dr KL Moores & Mr R Keriakos (Presented at Directorate Audit Meeting July 2008)
Implementation of 'tool' to assist clinician through HMB consultation and accurate documentation	? Stamp checklist in notes ? HMB consultation sheet for Gynae Outpatient department	6-12months	O&G Trainee Supervising Consultant
Re-audit change in practice	Re-audit to be planned for 12 months following change in practice	>12months	O&G Trainee Supervising Consultant

Title: Audit of Treatment for Chronic Hepatitis B: Adefovir dipivoxil (in addition to Lamivudine), Peginterferon alfa-2a and Entecavir

Lead Clinician(s): Professor Mike McKendrick

Work undertaken by: Mr Ray Poll and Dr Ben Stone

Lead from CEU: Louise Chopra

Aims and Objectives:
Chronic hepatitis B (HBV) is defined as persistence of surface antigen for 6 months or more after acute infection. People with active chronic HBV are at increased risk of liver cirrhosis and primary liver cancer. In 2006, NICE recommended adefovir dipivoxil and peg-interferon alfa-2a for the treatment of chronic HBV, with Entecavir being added in 2008.
This audit aimed to assess whether patients with chronic HBV are treated in accordance with NICE guidelines.

Audit Standards and results:

Criteria	Standards	% compliance
1. Patients with liver disease or inflammation are considered for treatment	All patients received treatment on the basis of HBV DNA >$2x10^4$ and/or: a) persistently abnormal LFT*; b) liver biopsy shows inflammation >3 or fibrosis present.	**100%** (16/16)
2. Not all patients will require treatment. Inappropriate treatment plans can lead to limited options in the future.	All patients who received treatment will have had the regimens agreed with the consultant physician.	**68.8%** (11/16)
3. Unless contraindicated, patients with HBeAg positive disease are offered pegylated interferon.	All patients who were HBeAg positive were offered interferon unless they had: a) normal LFTs b) ongoing psychiatric problems c) decompensated cirrhosis d) other medical contraindications e) declined due to adverse events	**100%** (6/6)
4. Approximately 60-70% of patients will develop resistance to Lamivudine over 5 years	Adefovir monotherapy may be given or added to Lamivudine where resistance has occurred or likely to develop	**87.5%** (7/8)
5. Newer licensed drugs (subsequent to NICE) are emerging (with higher resistance barriers)	Entecavir may be given to patients as first line treatment or in those who have developed resistance to Lamivudine or Adefovir.	**50%** (2/4)

* Persistently abnormal LFT is defined as more than 1 measurement of abnormal ALT in the last twelve months with a score of >30 IU/L for men and >19 IU/L for women

Methods:
Data was collected using an electronic database from 16 sets of notes looking at patients who had undergone treatment from February '06 to February '08. Two sets of notes were piloted first and five patients were subsequently excluded (1 had acute HBV infection and 4 were co-infected with HIV).

Limitations:
Problems were encountered recording data on the electronic database, resulting in time delays. If a further audit is planned then the database will need to be refined or a paper collection tool used. The GP letter headings were used to identify data but were not always up to date. The main body of the patient's notes often had to be searched for missing data which resulted in further delays.

Conclusions:
All patients (16/16) received treatment according to guidelines and clinical need. Whilst only 68.8% (11/16) patients had written evidence their treatment plans had been discussed with the consultant, it is likely that verbal agreement will have been reached in the post-clinic meeting. All appropriate patients (6/6) were started on interferon therapy as first line treatment.

Recommendations:

- Improve recording of discussion of treatment plan with consultant
- Resistance tests performed on all patients prior to starting treatment (this will include genotype)
- Review notes of patient on Lamivudine monotherapy
- Improve update of GP letter headings where necessary
- Consider using the department database for future audit if required

Title: Inadvertent perioperative hypothermia – intraoperative phase audit

Lead Clinician(s): Dr Karim Dakkak, Dr Andrew Beechey, Consultant Anaesthetist, Sheila Reynolds, Audit Lead for Critical Care

Work undertaken by: Dr Karim Dakkak

Lead from CEU: Sue Cross/Paula Johnson

Aims and Objectives:
To measure compliance with NICE guideline CG65. To measure current practice in measuring patient's temperature and treating intraoperative hypothermia.
The guidance is divided into three phases, preoperative, intraoperative and postoperative

Methods: Data was collected prospectively for one week in June 2008 using questionnaires completed by Operating Department Practitioners (ODP's). 202 questionnaires were completed, 14 were excluded and data from 188 questionnaires was used.

Audit Standards and Key Results:

1. The ambient temperature should be at least 21°C while the patient is exposed in the theatres. Once forced air warming is established, the ambient temperature may be reduced to allow better working conditions

Result 81%
132/162 patients. Ambient temperature was <21°C for 30 patients and no forced air warming used (26 patients had no ambient temperature registered).

2. Patients who are at higher risk of inadvertent perioperative hypothermia and who are having anaesthesia for more than 30 minutes should be warmed intraoperatively from induction of anaesthesia using a forced air warming device

Result 92%
135/188 patients had forced air warming (41 patients' anaesthesia lasted for less than 30 minutes)

3. The patient's temperature should be measured and documented before induction of anaesthesia and then every 30 minutes until the end of surgery

Result 31%
45/188 patients had their temperature measured and documented throughout the anaesthetic (41 patients' anaesthesia lasted less than 30 minutes)

4. Intravenous fluids (500 or more) and blood products should be warmed to 37°C using a fluid warming device

Result 52%
For 83/159 patients a fluid warming device was used for IV fluids (29 patients had less than 500 mls of IV fluids)

5. Induction of anaesthesia should not begin unless the patient's temperature is 36°C or above

Result 0%
The temperature was not measured in all 188 patients at induction of anaesthesia

Limitations:
This audit measures compliance with the guidance for the intraoperative phase only. The result of 0% for standard 5 (see above) would suggest a need to audit the preoperative standards.

Conclusions: The results for standards 1 and 2 reflect good practice although practice could be improved in some cases. The results for standards 3-5 highlight areas for improvement.

Recommendations:

1. Default setting should be with fluid warmer and temperature measurement on all patients
2. Measurement of patient's temperature on reception

Make thermometers available in all emergency theatres

Title: Re-audit of the RCM (2005) Guidelines and an audit of NICE Intrapartum Guidelines (2007) regarding Women's Choice and Control during Childbirth

Lead Clinician(s): Eleanor Clewes, Paula Schofield, Maxine Spencer, Adele Stanley and Jill Parton, Wendy Davis.

Lead from CAEU: Louise Chopra and Janet Turner

Aims and Objectives:
The project aimed to re-audit the Evidence based guidelines for midwifery led care in labour (RCM 2005) and audit the NICE Intrapartum Guidelines (2007), regarding women's choice and control during childbirth.

Audit Standards and Results:

Standard	2006	2008
100% of women are given options regarding choice of place of birth	73%	83% questionnaire
100% of women are informed of the potential risks and benefits of each birth setting	Not measured	70% questionnaire
100% of women are given support by a midwife to write a birth plan	62%	76% case notes
100% of women have options discussed regarding overall coping strategies for labour	30%	50% case notes
100% of women have options discussed regarding positions for labour	29%	49% case notes
100% of women are given options regarding the management of the third stage of labour	48%	67% case notes
100% of women should initially be offered non pharmacological methods of coping with pain relief, including massage	30%	75% questionnaire
100% of women in established labour receive supportive one-to-one care	Not measured	61% questionnaire
100% of low-risk women are given the option of labouring in water	Not measured	59% questionnaire
100% of women [who choose an epidural] are informed of the risks and benefits of an epidural and the implications for labour. (Please note this question was put to all women in the sample and not only the women who chose an epidural)	Not measured	73% questionnaire

Data for the 2006 audit was collected entirely from the casenotes. Data for the 2008 audit was collected partly from the casenotes and partly from a patient questionnaire.

Coping skills discussed	Results 2006	Results 2008
Advice re being upright and mobile?	29%	66%
Advice re massage?	16%	36%
Advice re breathing - 'sigh out slowly'?	17%	84%
Advice re TENS?	19%	47%

Data regarding 'coping skills discussed' for the 2006 audit was collected entirely from the casenotes, for 2008 audit was collected entirely from the patient questionnaire.

Methods:
The project used both case note review and patient questionnaire. A convenience sample of the first 200 women who gave birth in the first two week of September 2008 was selected to be audited. The case notes of the first 100 patients were retrospectively looked at. The whole 200 sample received the questionnaire. 88 copies were returned.

Conclusions:
There was a significant improvement since 2006 in compliance for all the standards measured. It could be argued that the choices in some of the standards are not applicable to some of the women

booked for Consultant led Care. Therefore it is not possible to achieve 100% compliance for these standards.

Recommendations:

Recommendation	Action	Person responsible for implementation
Recommendation One	Promoting normality/homebirth workshops are being offered and run by Wendy Davis in the community for Community Midwives. The workshops would be beneficial for all midwives working on MLU and CLU. Information is in the new handheld records – also requires discussion with a midwife	Wendy Davis Adele Stanley Community Midwives
Recommendation Two	A copy of the OAA Pain Relief in labour booklet given out to every woman at booking (to be included in the booking envelope). It is agreed that the booking appointment is not the best time but this would ensure the majority of women receive a copy. Laminated sheets entitled 'Epidurals for Labour:-Key Facts' in every labour room.	Community Midwives Eleanor Clewes

Title: Audit of the management of High INRs in the Royal Hallamshire Hospital

Lead Clinician(s): Dr Rhona Maclean, Consultant Haematologist

Work undertaken by: Dr Victoria Khromova, Peter Brown (Clinical Scientist)

Lead from CEU: Louise Chopra

Aims and Objectives:
The NPSA patient safety alert (18) in 2007 recommended actions that can make anticoagulant therapy safer including auditing anticoagulant services. One complication of anticoagulants such as warfarin is haemorrhage and there is evidence that an INR greater than 5 is associated with an increased risk of bleeding in some cases. The British Committee for Standards in Haematology (BCSH) has issued guidelines on the management of an INR above 8. This audit aims to review the management of patients who have an INR above 8.

Audit Standards and results:

Standard	% compliance
All patients had their anticoagulant omitted on presentation	79%
All patients with additional risk factors (i.e. age over 70, previous history of bleeding or epistaxis) received vitamin K.	45%
All patient notes have documentation of other causes of high INR being considered.	63%
100% of patients with INR greater than 8 with no other risk factors for haemorrhage should stop treatment until INR is less than 5.0.	100%
All abnormal results were phoned by laboratory staff to relevant location.	79%
All patient notes documented whether there was no, minor or major bleeding at time of presentation.	74%

Methods:
All patients with INR >8 in the period 01/06/06 – 31/01/07 were considered. All GP patient results were excluded and all repeat results were excluded (i.e. only the initial high INR was taken into account). In total 39 sets of notes were looked at.

Conclusions:
- Despite clear protocols not all high INRs were being 'phoned through to the health professionals concerned
- The management of high INRs is poorly documented in the notes

Recommendations:
- Make laboratory staff aware of the current shortfall in reporting high INRs
- Current guidance in STHFT should be amended to include the recommendation to give vitamin K to patients with bleeding risks and an INR >8.0 in the absence of any bleeding.
- Consider the use of a 'high INR' proforma for use on all wards. This may improve documentation and management.
- Educate staff that an INR >8.0 is a clinical incident and therefore a clinical incident form should be completed for all such events.
- Role out the Audit to include the Northern General Site.

Re-audit
In 2008 the issue of communication of high INRs was re-audited using data recorded on the hospital APEX system. The results of this audit were considerably better with only 4% of patients in the sample having no evidence of the high INR being 'phoned through, compared with 21% in the previous audit. This issue has since been highlighted at staff meetings to raise awareness.

Title: Audit of Management of Severe Pre-Eclampsia (prescribing and fluid-balance)

Lead Clinician(s): Dr Madeleine Macdonald, Mr Dilly Anumba

Lead from CEU: Louise Chopra

Aims and Objectives:

The CEMACH report 'Why Mothers Die' highlighted maternal deaths from pre-eclampsia and eclampsia. Eclampsia is a very rare event at Jessop Wing but approximately 100 women are diagnosed with pre-eclampsia in a year. Initial two-stage audit identified poor compliance in fluid balance management for these women. Local guidelines have now been amended and standards developed. This audit aims to assess local management of severe pre-eclampsia against national guidelines and identify shortfalls and suggest improvements if required.

Audit Standards and Results:

1. The Consultant on call should be informed of a patient with severe pre-eclampsia who is admitted to HDU in 100% of cases	83%
2. 100% of patients with severe pre-eclampsia should be kept in HDU for 24 hours following delivery	83%
3. 100% of patients with severe pre-eclampsia should be commenced on thromboprophylaxis	88%
4. An oral hypertensive should be used in the first instance for all patients with raised blood pressure requiring treatment in 100% of cases	85%
5. Intravenous labetalol should be prescribed following JW protocol in 100% of cases	67%
6. The decision to commence magnesium sulphate should be made by the consultant in 100% of cases	73%
7. The indication for magnesium sulphate should be documented in 100% of cases	59%
8. An HDU fluid balance chart should be used for all patients with severe pre-eclampsia whilst on HDU	96%
9. Patients with severe pre-eclampsia postpartum should be fluid restricted to 85mls/hr whilst in HDU unless documented otherwise	80%
10. A fluid management plan for the day should be documented on the ward round for all patients with severe pre-eclampsia	56%
11. Any fluid changes administered to patients with severe pre-eclampsia should be discussed with a consultant obstetrician or anaesthetist	58%

Methods:
A sample of 100 women with severe pre-eclampsia admitted between 2003 and 2007 was taken. The case-notes were reviewed for these women and the results entered onto a MS Access database for analysis.

Conclusions:
From this audit it is clear that patients are managed by senior staff in the correct place. Oral antihypertensives are used in the majority of patients, however in patients requiring intravenous labetalol, prescription of the infusion fell well below the standard. Prescribing may have improved now that new guidelines were published on the intranet in November 2007.
Magnesium sulphate appears to have been commenced for the correct indications according to the guidelines, although documentation of the reasons for starting it could be better.
Thromboprophylaxis for patients who had been delivered by caesarean section was present in 100% of cases. In patients delivering vaginally however, thromboprophylaxis use was not obvious in the notes or on the drug chart, perhaps because most patients do not require this after a vaginal delivery.

Almost every patient had an HDU fluid balance chart that was used correctly; however fluid management plans were often absent. This is the main area of the audit where standards fell well below the targets set. It appears that it is the documentation of the plan that is lacking rather than the plan itself, as most patients were fluid restricted suggesting a plan had been made but not written down.

Recommendations:

- Fluid management plans need to be documented in a specified place in the notes or on the HDU chart itself where there is space for particular instructions
- Thromboprophylaxis in the form of TED stockings should be prescribed in the drug chart as well as any anticoagulation. This is now undertaken in gynaecology for elective and emergency patients.
- Now that there are new guidelines for the Management of Hypertensive Disorders in Pregnancy, a re-audit could be performed from November 2007 onwards.

Title: Anti-TNF in psoriatic arthritis: are NICE guidelines being met?

Lead Clinician(s): Dr Surabhi Wig, Dr Simon Till

Lead from CAEU: Louise Chopra

Aims and Objectives:

Psoriatic arthritis is an inflammatory arthritis closely associated with arthritis. It is recognised as a potentially serious and disabling disease. Anti-TNF therapy has proved to have disease-reducing activity in psoriatic arthritis and NICE has licensed the use of three anti-TNF medications (etanercept, infliximab and adalimumab) for use in psoriatic arthritis and guidelines have been issued for their use. The aim of this audit is to compare our practice at Sheffield Teaching Hospitals against the NICE guidelines.

Audit Standards and results:

Standard	% compliance
1. Anti-TNF therapy should be initiated and supervised by experienced specialist physicians	100%
2. If the patient had both psoriatic arthritis and psoriasis, their treatment should be managed by collaboration between a rheumatologist and dermatologist.	80%
3. Anti-TNF therapy is recommended if the patient had peripheral arthritis with 3 or more tender joints and three or more swollen joints.	100%
4. Anti-TNF therapy is recommended if the psoriatic arthritis did not respond to adequate trials of at least 2 standard disease modifying anti-rheumatic drugs (DMARDS), given either alone or in combination.	80%
5. Anti-TNF therapy should be discontinued after 12 weeks in patients whose psoriatic arthritis had not shown adequate response when assessed using psoriatic arthritis response criteria (PsARC).	60%

All 44 patients were given the option of choosing their anti-TNF agent. Infliximab should be used if the patient was intolerant of or had contraindications to treatment with Etanercept or had major difficulties with self-administered injections. Of the 11 patients on Infliximab, only one stated difficulty in self injection as reason for choosing this treatment.

Methods:
Retrospective case note review. Patients included were those who were diagnosed with psoriatic arthritis and were treated with anti-TNF therapy at any time during their disease process (44 patients in total).

Conclusions:
Some of the standards are being met with 100% compliance; however the recommendations from NICE for prescribing Infliximab are not being met.

Recommendations:

1. A consistent involvement of dermatology colleagues is needed in patients with cutaneous psoriasis and psoriatic arthritis.
2. Guidelines for the use of at least 2 DMARDS before switching to anti-TNF should include the duration for which the DMARDS should be used.
3. There is a need for a protocol-driven use of the choice of anti-TNF agent (Etanercept vs. Adalimumab as the 1st choice)

Title: Audit of the prescription of Adalimumab, Infliximab and Etanercept for the treatment of Rheumatoid Arthritis (RA)

Lead Clinician(s): Dr Brenden Walker, Dr Rachael Kilding

Lead from CAEU: Louise Chopra

Aims and Objectives: To ensure compliance with NICE guidelines for the prescription of anti-TNF drugs for RA

Audit Standards and results:

1. 100% of patients should undergo trials with at least 2 DMARDS before considering adalimumab, etanercept and infliximab as a treatment option. (Note: The trials of 2 DMARDS should include methotrexate, unless contraindicated. A trial of a DMARD is defined as being normally of 6 months, with 2 months at standard dose, unless significant toxicity has limited the dose or duration of treatment)	100%
2. 100% of patients receiving a TNF-a inhibitor should have it in combination with methotrexate Exception: patients who are intolerant of methotrexate or it is inappropriate	100%
3. Before initiation of therapy 100% patients must be evaluated for active and inactive (latent) tuberculosis infection. (Note: adalimumab is contraindicated in patients with active TB)	100%

Patients for whom the use of adalimumab, etanercept and infliximab has been considered as a treatment option should have active RA (as measured by a disease activity score (DAS 28) of greater than 5.1 confirmed on at least 2 occasions at least 1 month apart). The monitoring and documentation of DAS scores was looked at and they were generally well highlighted and documented clearly in the notes.

Methods:
The sample population consisted of patients who had started treatment for RA within the previous 12 months from the start of the audit. Data was obtained by reviewing the medical notes.

Limitations:
The monitoring of DAS 3 scores was not included in this audit but repeat DAS scores were seen in most medical notes at future consultations.

Conclusions:
Generally all standards were well adhered to with high compliance rates.

Recommendations:

- The anti-TNF database needs to be kept up to date
- Use of a simple proforma to be kept in patients notes to document DAS scores and checks on contraindications. These could be easily used to update the database at the end of clinic consultations.

Title: Audit of CEMACH 'Saving Mothers Lives' Top Ten recommendations (standards 2 & 3)

Lead Clinician(s): Paula Schofield, Eleanor Clewes

Lead from CAEU: Louise Chopra

Aims and Objectives:

The **l**atest confidential enquiry into maternal and child health (CEMACH) was issued December '07 with 10 key recommendations. The aim of the audit was to initially monitor existing performance for 1 month in order to achieve CEMACH recommendations by December 2009

Audit Standards and Results:

1. 80% of women should have an antenatal care 'booking visit' and hand held maternity records completed by 12 completed weeks of gestation [usually done in the community]	75%
2. 80% of women should have their first full booking appointment, including dating scan by 12 completed weeks of pregnancy [At Jessop Wing ANC]	29%
3. Women should have their first full booking appointment, including dating scan, within 2 weeks if they are already 12 or more weeks pregnant.	10%

Methods:
The audit looked at a one month sample of all women attending the Jessop Wing antenatal clinic (approximately 300-400 women). Data was collected by the antenatal clinic team and analysed by the Clinical Audit Midwife. The results were presented to the Midwifery Management Group, at a directorate meeting and to all community midwives.

Conclusions:
It has been recommended that the data fields collected during this audit should be routinely collected in the hospital Protos computer system to aid the re-audit in 2009.
Second data collection will take place in December 09

Recommendations:

Recommendation Number	Plan	Responsible Officers	Completion Date
Recommendation Two	The gestation at the home booking visit will be entered onto the PROTOS system at the hospital booking appointment, to enable ongoing assessment of this recommendation and achievement of 80% coverage.	Karen Tindall Maxine Spencer Vicky Hill	August 2008
Recommendation Three	The development of a fast track letter to highlight late bookers referred in from community is under development. A review of the antenatal appointment system is underway in order to streamline the service.	Karen Tingle Maxine Spencer	August 2008

Title: National Audit of Services for people with Multiple Sclerosis 2008

Lead Clinician(s): Dr Sian Price

Lead from CEU: Jean Schofield

Aims and Objectives:
Overall aim to improve services for people affected by multiple sclerosis

1. To quantify the differences between recommendations made in the NICE National Clinical Guidelines and actual service provision and to identify variations across England and Wales, through comparing data obtained from:
    - People responsible for governance of health service provision (SHAs/ROs)
    - Health care commissioners (PCTs/LHBs)
    - Service providers (Acute Trusts)
    - People with MS needing & using services
2. To measure progress in implementation of National Clinical Guideline for Multiple Sclerosis
3. To compare performance against relevant parts of the NSF for Long Term Conditions where possible
4. To develop further strategies to facilitate improvement of service delivery to people with MS in England & Wales
5. To increase awareness in the organisational level of the NHS of the NICE National Clinical Guideline for Multiple Sclerosis

Audit Standards:

- Provision of specialised services
- Rapid initial diagnosis
- Provision of seamless services across boundaries
- Involvement in clinical decisions
- Sensitive but thorough assessment
- Self referral
- Registration and investigation of each new skin pressure ulcer

Methods:
Data on service provision was collected from acute trusts (127/157 acute trusts participated) as part of the national audit in February and March 2008. A national patient survey was also carried out (1300 users). In addition 140/172 service commissioning organisations took part and 7/13 organisations responsible for performance management. Data was triangulated.

Main National Recommendations for Acute Trusts:

- Ensure that any person with MS in their care for whatever reason has timely access to an expert neurology service and an expert neurological rehabilitation service.
- Ensure that health professionals engage people with MS fully in all clinical decisions
- Give people with MS information about relevant local non-statutory services as well as national services.

Conclusions:
The national report was received into the Trust in June 2008 and was discussed within Sheffield Teaching Hospitals, the MS Clinical Services Group and at the Sheffield City-wide Long Term Conditions Steering Group.

Following this a local action plan has been produced by the Clinical Lead and the Clinical Effectiveness Unit will continue to be involved in co-ordinating the work required to address any recommendations emanating from the project once the action plan has been fully disseminated to the appropriate stakeholders.

Title: National Sentinel Clinical Audit of Stroke 2008

Lead Clinician(s): Amanda Jones, Lead Clinician for Stroke

Lead from CEU: Jean Schofield, Clinical Audit Development Manager

Aims and Objectives:

1. To audit against National Clinical Guidelines for Stroke
2. To enable Trusts to benchmark the quality of stroke services nationally and regionally
3. To measure the rate of changes in stroke service organisation and quality of care for stroke patients since the National Audit Office Report
4. To measure the extent to which recommendations made in 2006 national sentinel audit have been implemented

Audit Standards:

26 standards relate to the process of care: initial patient assessment (4), multidisciplinary assessment (5), screening & functional assessment (4), care planning (3), communication with patient & carers (5), acute care (5)

Methods:

60 consecutive admissions between 1 April and 30 June 2008 with a primary diagnosis of stroke were audited by members of the STHFT Stroke Multidisciplinary Team. Data collection took place in October/November 2008 and was entered via a web-based tool for analysis by the Clinical Effectiveness & Evaluation Unit, RCP.

Key Results:

The table below provides summary results for the 9 key indicators of stroke care and for the 6 domains of care

A new measure for 2009 is the 'bundle' of indicators which describes the percentage of appropriate patients receiving all 9 key indicators. 44% of eligible STHFT patients received all 9 indicators but nationally only 17% receive all 9.

Key process indicators: site variation

Table gives % compliance with each indicator, for applicable patients			ALL 214 sites 25% sites score below	Median score	25% of sites score above	**STHFT % 2008**
1.	**Q1.10**	**Patients treated for 90% of stay on a stroke unit***	43.8	56.3	68.6	**52**
2.	Q3.3	Screen for swallowing disorders within first 24 hours of admission	57.6	73.3	87.8	**82**
3.	Q1.13iv	Brain scan within 24 hours of stroke	44.4	57.3	69.6	**78**
4.	Q3.4	Commenced aspirin by 48 hours after stroke	76.9	88.3	95.8	**96**
5.	Q3.6	Physiotherapy assessment within first 72 hours of admission	74.4	88.0	94.1	**85**
6.	**Q4.2**	**Assessment by an Occupational Therapist within 4 working days of admission***	43.2	69.0	85.0	**51**
7.	Q5.1	Weighed at least once during admission	60.6	75.7	87.3	**72**
8.	Q5.3	Mood assessed by discharge	43.2	67.8	86.6	**79**
9.	Q5.5	Rehabilitation goals agreed by the multi-disciplinary team	79.7	91.8	97.1	**97**
KEY 9		**Average for 9 indicators for 2008**	61.5	71.5	80.4	**77**

NB. * These indicators have changed for 2008. Previously 'More than **50%** of stay on stroke unit' and 'Assessment by occupational therapist within **7 days** of admission.'

STHFT key indicator average score was in the 'middle half'

Process domain and total scores: site variation

2008 Process of care domain	SITE VARIATION	ALL sites 25% sites score below	Median score	25% of sites score above	**STHFT score 2008**
D1	Initial patient assessment	64.5	75.8	82.3	**83**
D2	Multidisciplinary assessment	62.5	74.6	84.5	**65**
D3	Screening & Functional assessment	59.1	72.1	81.9	**73**
D4	Care planning	68.2	80.4	89.9	**93**
D5	Communication with patients & carers	54.9	69.6	83.2	**82**
D6	Acute care	45.6	50.8	58.0	**58**
Total	(D1+D2+D3+D4+D5+D6)/6	62.0	69.9	76.6	**75**

NB. D6 is a new additional domain for 2008

Conclusions:
The Stroke Service at STHFT continues to provide good care for patients but there are still areas for improvement which will be developed in line with the National Stroke Strategy. Recommendations are being made in the light of proposed changes to the Stroke Service in 2009/10 which include development of hyperacute services, further development of the TIA Service at STHFT and the provision of more specialist rehabilitation in the community by the Community Stroke Team and the opening of a pilot Intermediate Care Rehabilitation Facility with specialist stroke beds.

Recommendations:
The main recommendations focus on redesign of Stroke Services to facilitate:

- Direct admission to an Acute Stroke Unit (within 4 hours)
- Specialist stroke triage in A&E
- Specialist patient assessment in hyperacute unit in first 24hrs including continuous physiological monitoring
- Thrombolysis service available 24/7
- Appropriate staffing levels & skill mix
- Timely initial MDT assessments

Title: National Sentinel Organisational Audit of Stroke 2008

Lead Clinician(s): Amanda Jones, Lead Clinician for Stroke

Lead from CEU: Jean Schofield, Clinical Audit Development Manager

Aims and Objectives:

5. To audit against National Clinical Guidelines for Stroke
6. To enable Trusts to benchmark the quality of stroke services nationally and regionally
7. To measure the rate of changes in stroke service organisation and quality of care for stroke patients since the National Audit Office Report
8. To measure the extent to which recommendations made in 2006 national sentinel audit have been implemented

Audit Standards:
This audit compares the service organisation with standards derived from research evidence for organisation of stroke care delivery set out in National Clinical Guidelines for Stroke 2004. These relate to 8 domains of care as shown in the results table

Methods:
Data which represented the organisation of services as at 1st April 2008
was collected from managers within the Stroke Services (medical, nursing, AHP, radiology) between 3rd April 2008 and 2nd May 2008.

Key Results:
Total Organisational Score
A scoring system has been developed to enable trusts to compare their organisation of care with other trusts. The optimal score is 100.

Domains 2008 audit		National Lower Scores	National Intermediate Scores	National Higher Scores	**STHFT Score**
D1	Acute care organisation	37% scored 0 or17	42% scored 33, 50 or 67	21% scored 83-100	**50**
D2	Organisation of care	30% scored 0,14,29 or 43	53% scored 57 or 71	17% scored 86 or 100	**71**
D3	Consultant physician time (previously 'interdisciplinary services, overall')	26% scored 0 to 63	49% scored 75 or 88	25% scored 100	**13**
D4	Interdisciplinary services (Stroke Unit)	25% scored 0-48	51% scored 49-66	25% scored 67-100	**61**
D5	TIA/Neurovascular clinic	24% scored 0-63	47% scored 69-94	29% scored 100	**100**
D6	Continuing education	23% scored 0-42	51% scored 50-83	25% scored 100	**100**
D7	Team meetings	25% scored 0-81	66% scored 88 or 94	10% scored 100	**100**
D8	Communication with patients & carers	25% scored 6-52	49% scored 54-86	26% scored 87-100	**93**
Organisational audit total score (Average of 8 domain scores)		25% scored 15-61	50% scored 61-77	25% scored 78-95	**73**

Limitations:
Domain 3 score was adversely affected by the response to one question relating to having a consultant physician with specialist knowledge formally recognised as having principal responsibility for stroke services. This had been the case for previous audits but by 2008 the Trust had taken the innovative decision to employ the Stroke Nurse Consultant as Lead Clinician for Stroke. Following discussions with the RCP this question will be changed to recognise that the overall lead may be a medical, nursing or therapy consultant for the 2009 Organisational Audit.

Conclusions:
STHFT total organisational score of 73 was above the national median organisational score of 69. Organisational issues are being addressed as part of the reconfiguration of Stroke Services

Recommendations:

- Presentation at hospital – to continue to plan for direct access as part of reconfiguration of Stroke Services
- Thrombolysis - service available 24/7
- Imaging – to reduce non urgent weekend waiting times for MRI to 5-24 hours
- Staffing – review staffing levels of medical, nursing, AHP
- Provision of 7 day rehabilitation – to initiate discussions with Professional Services Directorate re feasibility
- Longer term management provision - to discuss with the Commissioners

Title: Audit of Thromboprophylaxis

Lead Clinician: Dr Rhona Maclean, consultant Haematologist
Thrombosis Committee consulted regarding project plan and support to change practice
Individual clinicians in sample areas collected data and disseminated results locally

Lead from CEU: Janet Jenkins / Paul Griffiths

Aim:
To measure compliance with the STH guidance for VTE and in tern adherence to the NICE clinical guideline 46 on which this is based.

Methods:
Data was collected over summer 2008, giving adequate time for the guidelines to be embedded into practice following their launch in December 2007. It was agreed that medical staff should undertake the data collection as they were responsible for completing the assessment. This happened throughout except for one area in which experienced nursing staff undertook the data collection and worked closely with the medical team regarding the results/recommendations and subsequent actions. Data was collected concurrently using either the medical or surgical version of the audit proforma which reflected the appropriate criteria/standards being measured.

Results were received from 5 areas with a total of 100 sets of notes included.
Other areas were invited to take part, but it was agreed that this sample represented a cross section of areas and further opportunity to participate would arise with the second data collection.

Key Results:
It was evident that in all the medical and one of the surgical areas the thromboprophylaxis risk assessment forms were not in the patients notes in less than half with two of these areas having one or no forms present.
Having the form in the notes in the first place was seen as a fundamental step to improving practice. This is demonstrated by Surgery 1 with the highest compliance of having the form in the notes and once it is there it appears to be well completed. The three patients who did not have a risk assessment form in their notes were emergency admissions. This implies that in surgery elective patients who attend pre assessment are more likely to be risk assessed. OR REPLACE WITH STANDARDS BELOW

Limitations:
It is evident that some of the questions will need to be reviewed and the form piloted before any future data collection.

Recommendations:
- Identify Champions in each area to promote and prompt the availability and completion of risk assessment forms. Look at ways of ensuring the risk assessment form is in the notes prior to admission/clerking or with other paper work required at this time depending on the type of area and current system
- Offer additional support to ward areas or consultant teams who are not complying to ensure best practice becomes embedded into the ward culture, consultant team and the organisation
- Compliance monitoring to be integrated into Healthcare Governance mechanisms within the Trust
- Raise the profile and achieve better integration of the Thromboprophylaxis strategy within the Trust which will require resources not currently available

Audit standards and results:

Criteria	Standards	Question	Overall achievement
All patients are risk assessed using the guidelines for the prevention of venous thromboembolic disease	100% of patients have an appropriate thromboprophylaxis risk assessment form in the medical notes	Q2. Is there a thromboprophylaxis risk assessment form in the notes?	42.5% 108/254
	100% of patients have an	Q2a. Are the patients	

	appropriate thromboprophylaxis risk assessment form in the medical notes	details complete?	48% 70/146
	100% of forms contain the risk assessors' details.	Q2b. Are the assessor details complete?	42% 62/146
All patients are risk assessed using the guidelines for the prevention of venous thromboembolic disease	100% of patients are risk assessed	Q3. Has a VTE risk assessment taken place?	45% 112/251
	100% of patients are risk assessed within 24 hours of admission	Q4 If yes was the risk assessment within 24 hours of admission?	49% 54/110