

TRUST BOARD PART I – OCTOBER 2011

Agenda Item Number: 163/11
Enclosure Number: (5)

<p>Subject:</p>	<p>Clinical Effectiveness Report</p>
<p>Prepared by:</p>	<p>Derek Williams – Clinical Audit and Assurance Manager</p>
<p>Sponsored by:</p>	<p>Simon Holmes – Medical Director</p>
<p>Presented by:</p>	<p>Simon Holmes – Medical Director</p>
<p>Purpose of paper</p> <p><i>Why is this paper going to the Trust Board?</i></p>	<p>Discussion requested by Trust Board Regular Reporting For Information / Awareness</p>
<p>Key points for Trust Board members</p> <p><i>Briefly summarise in bullet point format the main points and key issues that the Trust Board members should focus on including conclusions and proposals</i></p>	<ul style="list-style-type: none"> • Clinical Effectiveness Steering Group: <ul style="list-style-type: none"> - Merged with Hospital Standardised Mortality Ratio (HSMR) group. - Departments/specialities to report on outcomes. • HSMR <ul style="list-style-type: none"> - Currently 92, below the National average. • Dr Foster alerts <ul style="list-style-type: none"> - Knee revision: indicated above national average. Full investigation showed coding issue. Now equal to the national average. - Deficiency and other anaemia: indicated statistically higher than national average. Full investigation showed coding issues – no patients coded for or had anaemia recorded as primary diagnosis in the spell they died in. No longer an alert. • PROMS <ul style="list-style-type: none"> - Hip and knee replacement and groin hernia: at or above the national average for patient reported health gains. - Varicose veins: numbers are too small and therefore, not statistically significant. • National Clinical Audit <ul style="list-style-type: none"> - National Hip Fracture: Audit demonstrates the Trust provides one of the best clinical services for patients with fractured neck of femur in the UK. - National neonatal Audit programme: Consistently high results. - National audit of Bronchiectasis: Good practice noted, no comparison with other trusts available. • Speciality reports – Emergency Department: <ul style="list-style-type: none"> - National audit of the treatment of adult patients presenting to the ED with severe to moderate pain with renal colic: consistently between the median and upper quartile; in a number of cases above the upper quartile compared to over national EDs. - National audit of the treatment of adult patient triaged to the majors area: performance about the median level when compared to national average. - National audit of the treatment of feverish children (under 5 years of age) presenting to the ED with a medical condition: performed in a range from below

	<p>the lower quartile to the median of national ED in the measurement of all the vital signs.</p> <ul style="list-style-type: none"> • Local Clinical Audit <ul style="list-style-type: none"> - Trust-wide forward audit programme in place. • NICE <ul style="list-style-type: none"> - Quality Standards: 10 currently published. Expected to increase in number. - Technology Appraisal Guidance: Continued improvement in compliance. - Interventional Procedure Guidance: Continued improvement in compliance.
<p>Options and decisions required</p> <p><i>Clearly identify options that are to be considered and any decisions required</i></p>	<p>Nil decisions required.</p>
<p>Next steps / future actions:</p> <p><i>Clearly identify what will follow the Trust Board's discussion</i></p>	<p>Quarterly reports to the Board</p>
<p>Consideration of legal issues (including Equality Impact Assessment)?</p>	<p>Considered none</p>
<p>Consideration of Public and Patient Involvement and Communications Implications?</p>	<p>Considered none</p>

Introduction

This Clinical Effectiveness / outcome report aims to inform the Board on performance of the Trust clinical outcomes.

This report summarises the output of the Clinical Effectiveness Steering Group (CESG) and will develop over time in response to Board requirements and feedback and the outcome reports generated from National Audits, NICE guidance reports and national reviews of clinical results.

1. Clinical Effectiveness Steering Group

The Hospital Standardised Mortality Ratio (HSMR) group has now amalgamated with the CESG and continues to receive regular reports and monitor data provided by Dr Foster.

In order to ensure the effectiveness of the CESG each department/speciality are required to present outcome data to the group. This will enable the opportunity to further probe for details in order to ensure focus on improving effectiveness and clinical outcomes of specialities.

2. Dr Foster – Hospital Standardised Mortality Ratios (HSMR)

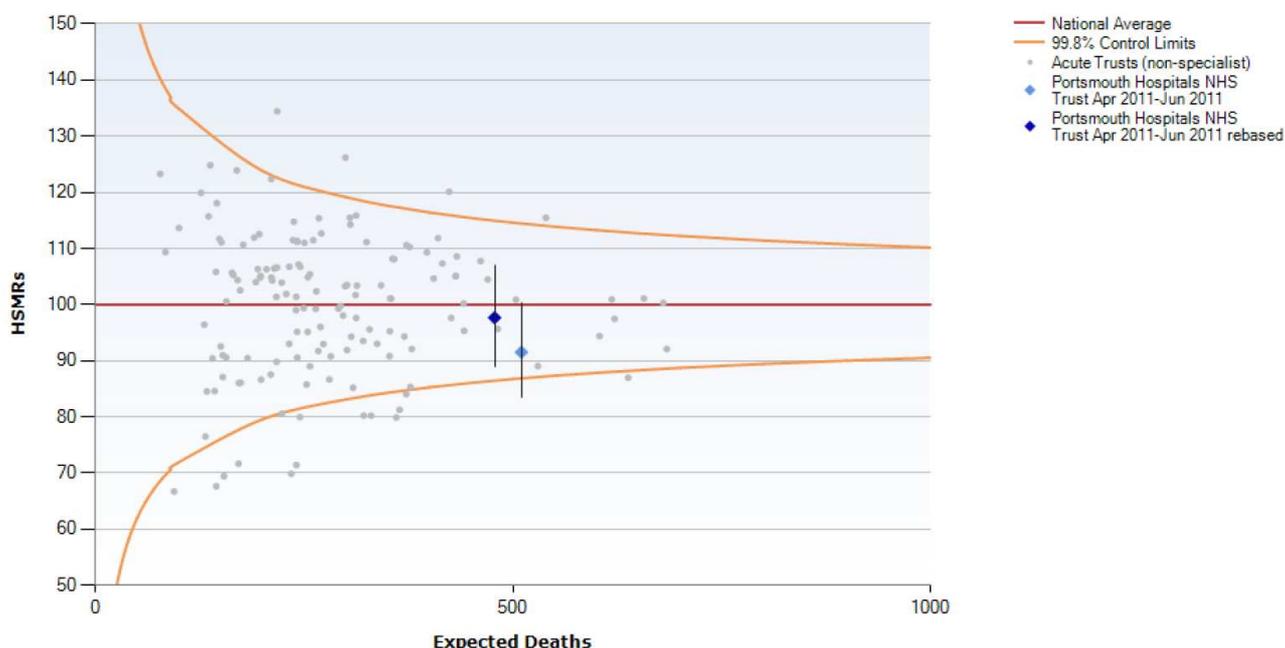
HSMR is a standardised measure of hospital mortality. It is the observed number of in-hospital spells resulting in death divided by an expected figure for 56 diagnoses which represent 80% of hospital mortality in England. Day cases are excluded unless the patient died. The expected figure is derived from a model which adjusts for case-mix factors. HSMR statistics and data are monitored at the CESG through a standing agenda item.

HSMR update

The Dr Foster Unit at Imperial College has made four methodological upgrades to the HSMR risk models to improve case-mix adjustment and make the methodology more statistically robust. The four changes are:

1. Only use data from 2000/2001 onwards.
2. Remove ethnicity from the case-mix model.
3. Improved Charlson weightings for interaction – takes into consideration that comorbidity differs by age.
4. Better adjustment for age – previously at least 20 deaths per age group were required, now only 10 deaths per group are required.

Following the methodology changes the Trusts current HSMR is 92. Once re-based this will be 98, which remains below the National average.



HSMR	HSMR for the 12 months ending:				HSMR YTD
	Mar 2009	Mar 2010	Mar 2011	Jun 2011	Apr 2011-Jun 2011
Portsmouth Hospitals NHS Trust HSMR	96	102	103	99	92
Low	92	97	98	95	83
High	101	106	107	104	100
2011/12 rebased	-	-	-	101	98
Low	-	-	-	97	89
High	-	-	-	106	107
vs 2008/09 benchmarks	96	90	82	80	73
My peer group HSMR	106	103	104	102	96
2011/12 rebased	-	-	-	104	102
vs 2008/09 benchmarks	106	91	84	83	78
England HSMR	100	100	100	98	94
2011/12 rebased	-	-	-	100	100
vs 2008/09 benchmarks	100	89	81	79	76

3. Summary Hospital-level Mortality Indicator (SHMI)

The NHS Information Centre is developing a 'Summary hospital mortality indicator'. The SHMI methodology was released at the end of July, however, as there had not been agreement on measuring mortality rates, the information centre launched a formal consultation. The new methodology is expected to be made available to the public in October.

SHMI will be discussed at the September CESC and monitored through the group.

4. Dr Foster

Through analysis of Dr Foster alerts, two indicators were identified as possible 'outliers' which required further investigation:

- Knee revision rates
An alert indicated that the Trust was above the national average for knee revision rates. This was investigated and related to coding errors and has been resolved. This has now been corrected and the Trust is currently equal to the national average.
- 'Deficiency and other anaemia'
An alert indicated that the Trust had statistically higher rates than the national average. This was investigated and related to coding errors and has been resolved.

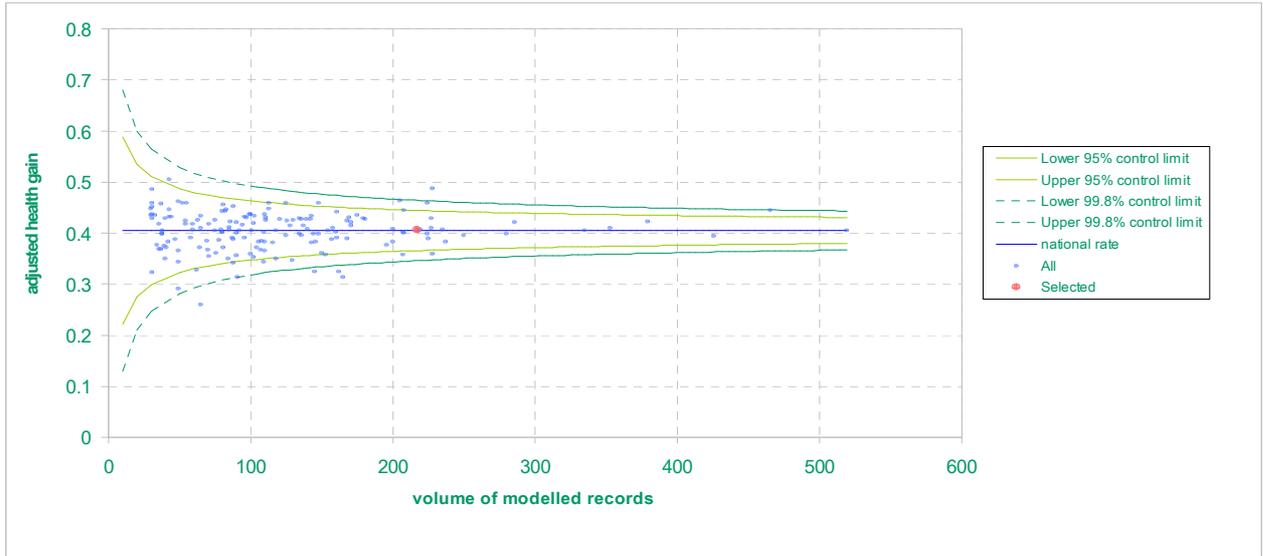
5. Patient Reported Outcome Measures (PROMs) Provisional Results April 2010 – March 2011

The provisional results for 2010/2011 were published on the Information Centre website on 17th August 2011.

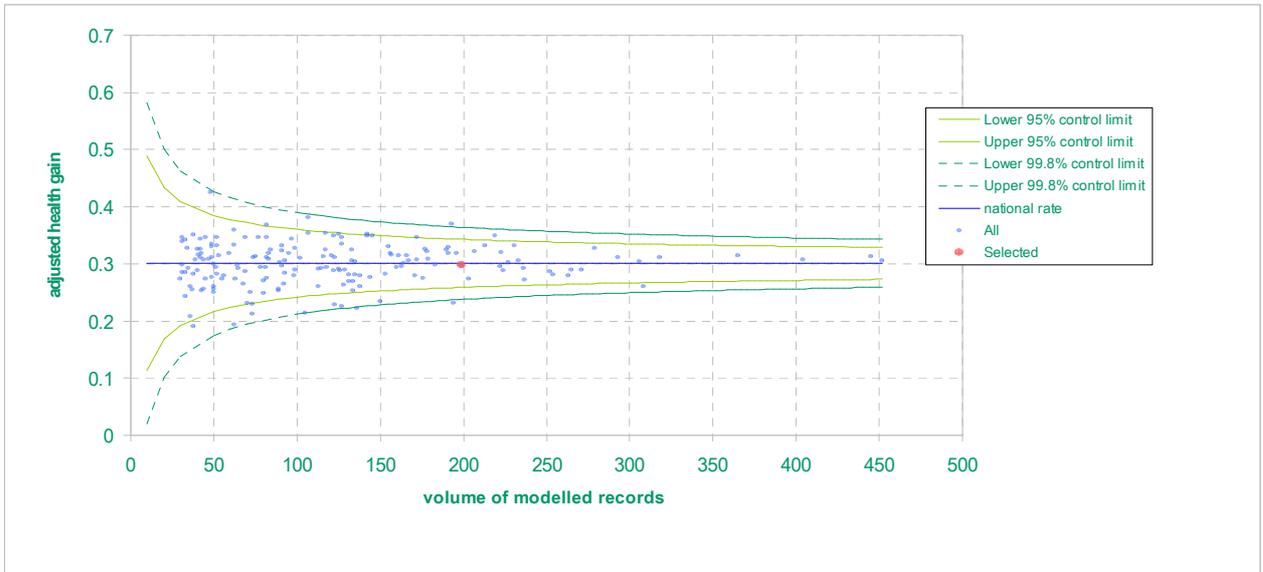
The graphs below demonstrate the position of the Trust in comparison to other organisations (the red point indicates the Trust performance).

As can be seen, in relation to hip replacement, knee replacement and groin hernia repair the Trust is at or above the national average in terms of patient reported health gain. The figures for varicose veins are so small that they are deemed as not statistically significant so are not included.

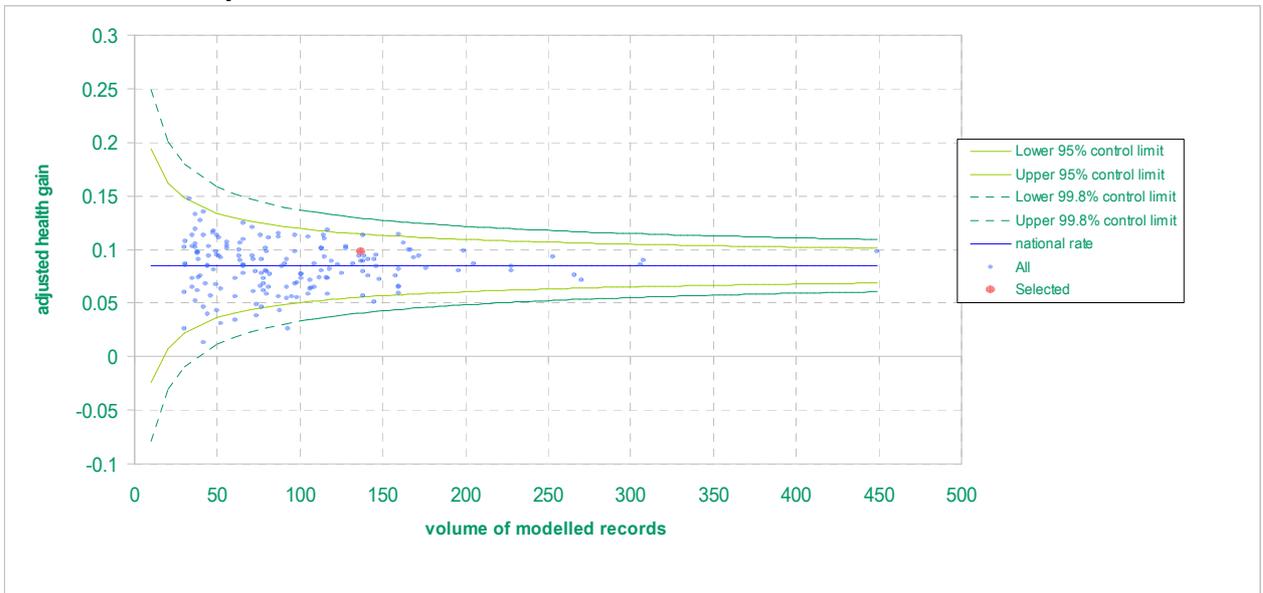
Hip Replacement



Knee Replacement



Groin Hernia Repair



6. Engagement in Clinical Audit

The Clinical Audit Policy, in line with National Health Service Litigation Authority (NHSLA) requirements, has now been ratified by the CESG.

7. National Clinical Audit

7.1 National Hip Fracture Database 2011:

Fracture neck of femur is a very common clinical problem with a wide range of clinical outcomes and thus has attracted the attention of National Audit. The National Hip Fracture Database is an audit of hip fracture and secondary care prevention and reviews over 53,000 cases between April 2010 and March 2011, 654 cases were submitted by the Trust. 191 hospitals participated in total.

Since the national audit commenced, results have gradually improved across the country. Therefore, it can be regarded as an overall view of the quality of service of the trauma and orthogeriatric service.

There are a number of elements of the audit which are worthy of mention.

1. Completion of data fields for the audit.

This element measures compliance with the audit data entry. The Trust had a data completion rate of 99% which was the best performing hospital in the UK (out of 191).

2. ASA grade of patient at the time of surgery.

The Trust provided care to a cohort of patients with significant co-morbidity. The ASA grade of patients in Portsmouth was recorded as the 34th most severe in the UK (as compared to Reading which were 60th and Southampton which were 106th). This indicates that the Trust may have been dealing with a population of patients with greater co-morbidity than many other hospitals.

3. Discharge destination from hospital.

This measures the proportion of patients who are discharged 'home to home' - i.e. those that are admitted from home and returning there following discharge. The results show that the Trust achieved 70%, this equated to the 5th best result of participating hospitals. This is of particular note given that the population within the area has a high deprivation index.

The remainder of the results are summarised in the Table below:

	Cases	On orthopaedic ward within 4 hrs (%)	Data completion	Surgery within 48 hrs	Treatment without surgery (%)	Pressure ulcers (%)	Geriatrician input (%)	% patients on bone medication on admission	Length of stay - days
Overall National	53443	48	92	86	0.7	3.4	42	11.7	16
IoW	240	62	96	88	2.5	1.9	97	10	16
Basingstoke	216	51	97	98	4.2	3.8	50	15	21
Oxford	440	60	93	87	3.6	3.1	52	21	13
Reading	436	23	94	92	4.1	2.1	78	8.3	11
SUHT	555	69	92	81	1.1	1.4	85	14	16
PHT	654	76	99	92	0.9	1.3	86	5.2	15

This audit demonstrates that the Trust provides one of the best clinical services for patients with a fractured neck of femur in the UK.

This audit demonstrates good practice and achievements for the Trust:

1. The Trust provides a rapid access and multi-disciplinary service of the very highest quality.
2. The Trust provides the highest quality medical and surgical expertise to a population of patients with a high co-morbidity and still provides good outcomes.
3. The Trust gave nursing care that provided the lowest incidence of pressure ulcers in the SHA in spite of the co-morbidity of the patients.
4. The Trust achieved one of the lowest lengths of acute hospital stay for this group of patients.
5. The Trust is demonstrating that more patients return home following discharge than nearly any other hospital in the UK.

7.2 National Neonatal Audit Programme

Published in June 2011, this National Audit looks at the quality of care in neonatal units across England, a total of 46 units participate in the audit. The Trust is currently a Level 3 unit. The audit aims to:

- Assess whether babies received a consistent level of care across the UK.
- Identify areas for improvement in units in relation to delivery and outcomes of care.
- Provide a mechanism of ensuring high quality care

The following highlights the key results:

- Do all babies < 28 weeks gestation have temperature taken within 1 hour of arrival?
The Trust achieved 99%, resulting in the 5th best result of Level 3 units.
- Are all mothers who deliver babies 24 – 34 weeks given any ante-natal steroids?
The Trust achieved 87%, resulting in the 8th best score.
- Do all babies < 1500 gms or gestational age < 32 weeks undergo 1st retinopathy or prematurity screening as per guidelines.
The Trust achieved 65%, resulting in the 10th best score.
- What proportion of babies <33 weeks gestation were receiving any of their own mothers milk at time of discharge?
The Trust achieved 47%, resulting in the 16th best score.
- Is there a documented consultation with parents by a senior member of neonatal team within 24 hours?
The Trust achieved 78%, resulting in the 20th best score.

As can be seen these results are notable. This is particularly true in view of the high deprivation population of the area, the fact that the Trust is not a teaching hospital or one of the largest units in the UK and has a relatively small consultant workforce. This represents a very impressive result reflecting the dedicated and multi-disciplinary expertise within the department.

7.3 National Audit of Bronchiectasis

This audit was undertaken by the British Thoracic Society (BTS) and audited adult patient care against standards sourced from the BTS Guideline for non-cystic fibrosis Bronchiectasis (July 2010). Data collection for this audit took place between 1st October 2010 and 31st January 2011, with the results being published in February 2011.

The Trust submitted 43 cases against a requirement of 5; data completeness was 100%.

The audit results are returned from the BTS with comparison to the national data only. No trust to trust comparison is available currently.

Audit Standard	Audit standard target %	National result %	PHT result %
Chest CT	90	93	95
Sputum micro at last exacerbation	90	55	89
Immunoglobulins	100	77	88

Audit Standard	Audit standard target %	National result %	PHT result %
Aspergillus IgE	100	63	88
Total IgE	100	76	88
Cough record	100	70	77
Sputum colour record	100	68	91
Sputum volume record	100	49	70
Breathlessness record	100	55	86
<40 sweat test	100	30	70
<40 CF genetics	100	48	64
Spirometry	100	60	98
Chest physio	90	65	58
Pulmonary rehab	none given	11	3

The following good practice was noted:

- The Trusts patient investigations, disease monitoring and clinic review procedures are far better than the national average.
- Day of consultation spirometry is recorded in 98% of patients compared to the national average of 60%.
- Sputum culture at exacerbation is recorded in 89% of cases compared to 55% nationally.
- The group of patients visiting bronchiectasis clinic have more severe disease than the national average with 39.5% of patients being pseudomonas colonised in the last 12 months compared to the national average of 20.6%. Despite this the Trust admission rate and number of exacerbations per year is at the national average.

The following have been identified as areas for improvement:

- 3% of bronchiectasis patients complete pulmonary rehabilitation compared to a national average of 11%.
- Notes evidence of respiratory physiotherapy review was found in only 58% of patients compared to 65% nationally.

8. Specialty Report highlights

Emergency Department

The results of recent College of Emergency Medicine National Audits:

The National audit of the treatment of adult patients presenting to the Emergency Department (ED) with severe to moderate pain with renal colic.

This is the first time this audit has been conducted and compared Queen Alexandra Hospital (QAH) ED with 178 other departments.

QAH ED performed well in the audit, consistently between the median and upper quartile and in a number of cases above the upper quartile when compared to other national EDs.

Recommendations from the audit include:

- To improve documentation of vital signs.
- To improve documentation of pain scores.
- To improve reassessment of patients' pain scores after analgesia

The National audit of the treatment of adult patient triaged to the majors area..

This is the first time this audit has been conducted and compared QAH ED with 174 other departments.

As a department the performance was about the median level, when compared to the National average.

Recommendations from the audit:

- To improve and stream line the streaming process.
- To improve the recording of vital signs within 20mins of arrival.
- To improve communication with nurse in charge of majors.
- To review rotas to reflect patient arrivals.

The National audit of the treatment of feverish children (under 5 years of age) presenting to the ED with a medical condition

This audit compares QAH ED with 176 other departments. Nationally 9,086 cases from 177 EDs were included in the audit.

QAH ED performed in a range from below the lower quartile to the median of national EDs in the measurement of all the vital signs. 81% of patients (above the National upper quartile) had their vital signs measured within 20 minutes, however, an incomplete set of observations were being documented. Education is being undertaken to highlight the importance of recording all the vital signs.

Recommendations from the audit:

- To have an appropriate “safety net” when discharging unwell paediatric patients
- To perform a set of vital signs on feverish children within 20mins of arrival in the department.

A discharge leaflet “high temperature in children” has been developed and is being used in the Paediatric Emergency Department. This is currently being modified.

Patients who live in the Portsmouth City PCT catchment can be referred for community follow up by the COAST team.

The above audit results have been circulated to all ED medical staff and senior nursing staff. The results have been presented at an audit afternoon to doctors and nurses. The recommendations have been incorporated into weekly “ten tips”.

Other ED National Audits:

Abdominal and spinal injuries:

53 patients were audited between 2007/2010. The recommendations were:

- Grade of surgeon in ED should be a Consultant. The Trust is currently at 30%, the target is 100%. Time to theatre should be within 1 hour. Within the audit two patients required surgery, one of which was in theatre in 0.7 hours, whereas the other patient took 4 hours.

Thoracic injuries:

- 67 patients were audited between 2006/2010. The recommendations were: Chest drains for haemo/pneumothorax.
- Pulse oximetry should be recorded in 100% of trauma patients. QAH recorded at 95.5% (TARN average 90.2%).
- Must be seen by an appropriate Consultant in the Emergency Department. QAH recorded at 55.5% (TARN average 29.9%).

There have been concerns regarding the quality of the data being submitted to TARN, and steps have been taken over the past six months to improve the quality of data collection and to facilitate timely submission of the data.

To address the action points and the educational requirements from the TARN audit, a monthly Trauma study day has commenced. The aim is for all of the nursing staff to attend the study day and to increase the departmental awareness of trauma.

9. Local Clinical Audit

There is a Trust-wide forward audit programme in place which is monitored through the CESG.

10. National Institute for Health and Clinical Excellence (NICE)

NICE Quality Standards

NICE quality standards are a set of specific, concise statements and associated measures. They set out aspirational, but achievable, markers of high-quality, cost-effective patient care, covering the treatment and prevention of different diseases and conditions.

Derived from the best available evidence such as NICE guidance and other evidence sources accredited by NHS Evidence, they are developed independently by NICE, in collaboration with NHS and social care professionals, their partners and service users, and address three dimensions of quality: clinical effectiveness, patient safety and patient experience.

NICE quality standards are central to supporting the Government's vision for an NHS focussed on delivering the best possible outcomes for patients, as detailed in the 2010 NHS White Paper Equity and Excellence - Liberating the NHS.

Quality standards will be reflected in the new Commissioning Outcomes Framework and will inform payment mechanisms and incentive schemes such as the Quality and Outcomes Framework (QOF) and Commissioning for Quality and Innovation (CQUIN) Payment Framework.

NICE quality standards enable:

- Health and social care professionals to make decisions about care based on the latest evidence and best practice.
- Patients and carers to understand what service they should expect from their health and social care provider.
- Service providers to quickly and easily examine the clinical performance of their organisation and assess the standards of care they provide.
- Commissioners to be confident that the services they are purchasing are high quality and cost effective.

The CESG elects a clinical lead to review the appropriate quality standard and to undertake a gap analysis to produce an action plan against the recommendations. The CESG reviews and monitors the recommendations.

Currently there have been ten quality standards published. Those relevant to the services provided by the Trust, have had a lead appointed and a gap analysis undertaken, all are monitored through CESG.

Quality standards are set to expand over the next 5 years.

Technology Appraisal Guidance (TAG): Provide recommendations on the use of new and existing health technologies within the NHS. Each TAG focuses on a particular technology, which may be a drug, medical device, diagnostic technique, surgical procedure, or other intervention. Approximately a third of TAGs refer to technologies other than drugs.

There is a statutory obligation to meet the funding implications of the recommendations of all NICE TAGs within three months of the date of issue (unless where specifically exempted). As can be seen from the graphs below, despite increasing numbers of published guidance, the Trust continues to improve compliance.

Technology Appraisal Guidance – Compliance							
	Dec 09	Apr 10	Oct 10	Dec 10	Feb 11	Apr 11	Sept 11
Fully compliant	83 (85%)	85 (83%)	85 (84%)	95 (88%)	102 (92%)	106 (94%)	115 (94%)
Total Published	184	186	199	209	213	218	232

Interventional Procedure Guidance (IPG) – Evaluates the safety and efficacy of such procedures where they are used for diagnosis or treatment.

Interventional Procedure Guidance - Compliance							
	Dec 09	Apr 10	Oct 10	Dec 10	Feb 11	Apr 11	Sept 11
Fully compliant	34 (65%)	38 (78%)	42 (78%)	46 (83%)	50 (82%)	55 (92%)	57 (93%)
Total Published	330	337	354	368	379	387	404

Clinical and Cancer Services Guidelines (CG) – Provide recommendations based on the best available evidence, on the appropriate treatment and care of people with specific diseases and conditions and may focus on any aspect such as prevention, self-care, or management in primary and secondary care. These are usually based on much larger pathways of care and full implementation should be evidenced within 3-4 years of publication.

Clinical and Cancer Services Guidelines - Compliance							
	Dec 09	Apr 10	Oct 10	Dec 10	Feb 11	Apr 11	Sept 11
Fully compliant	35 (62%)	36 (64%)	38 (63%)	42 (65%)	44 (68%)	45 (67%)	49 (65%)
Total Published	111	116	129	131	133	140	148