Reinvigorating clinical audit to benefit patients in a large teaching hospital

Dr George Mikhaeel
Consultant Oncologist
Chair, Trust Clinical Audit Group

Guy’s and St Thomas’
NHS Foundation Trust
Outline

• Context: Hospital Background
• Our mission
• Where we were
• Where we wanted to be
• How are we getting there
• Reflections on the journey
The context: Guy’s & St Thomas’

• 2nd largest Hospital Trust in UK

• Large Medical School & largest Dental School in Europe

• Academic Health Science Centre (AHSC) with KCH & Biomedical Research Centre (BRC)

• Tertiary referral for many services (cardiothoracic, renal, children…)
GSTT

- 900,000 patient contact / year:
  - 604,000 outpatients
  - 76,000 inpatients
  - 64,000 day cases
  - 164,000 ED
  - 6,800 babies delivered

- 1110 beds (845 + 265)
- 50 operating theatres
- Largest intensive care in UK, 68 beds

- 11,000 staff:
  - 3,500 nurses
  - 600 AHP
  - 900 junior Drs
  - 600 senior Drs

- £1billion annual turn over
GSTT

• Research Excellence:
  – Asthma & allergy
  – Astherosclerosis
  – Cancer
  – Dermatology
  – Immunity & infection
  – Oral Health
  – Transplantation
  – Robotic surgery

• Quality:
  – SMR 25% better than UK average
  – MRSA bacteraemia reduction by 85% compared to 2004 (16 last year).
What did we want to do?

We wanted clinical audit to benefit patients
What is our understanding of Clinical Audit

“a quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria and the implementation of change” (NICE, 2002)

At Guy’s and St Thomas’ Hospitals we set out to apply this definition
## Where were we?

<table>
<thead>
<tr>
<th>Large number of Clinical Audits, very little effect on improving quality of patient care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typically ~500/year on central hospital register for the previous 3 years</td>
</tr>
<tr>
<td>Usually ~250 completed/year with hardly 20-30 having any real impact</td>
</tr>
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</table>
How topics were chosen

Usually individual initiatives not a co-ordinated whole service effort

Many were suggested + conducted by Junior Drs/nurses as a requirement for education accreditation

Result:

No focus on Quality

Not necessarily focusing on “important issues” affecting patient care or reflecting the quality/performance of the service
Methodology

- Poor **planning** with very little consultation
- No or poorly defined “**audit standards**”
- Many were **seeking info** NOT **measuring performance against agreed best practice**
- No **validation** of data collection tools, no pilots, inter and intra-assessor variability not addressed
- Mostly data collection exercises, no examination of **causes of poor performance** (no root cause analysis)
Confusion

Many other activities were labelled as Clinical Audit (either due to confusion or intentionally):

- Observational research / retrospective reviews
- Surveys
- Process mapping
- Simple counting (info gathering)
Impact

- Many projects stopped at data presentation
- Some had recommendations (based on individual interpretation, not on root-cause analysis)
- No real discussion in teams to formulate actions
- Few had workable “actions” to improve quality
- Many criticisms: methodology, credibility of data, speculation on alternative explanation of non-compliance (in absence of root-cause analysis)
Where stakeholders were not involved in the planning of the audit, they were less likely to believe the data.

No repeat measurement.

Very few had any real impact on improving patient care.
Where we want to be?
Our mission

In GSTT:

*Clinical audit is *not* data collection*

*But…*

*A quality improvement process*
Moving counting to improving

Measuring to improve

- Measuring **what matters**
- Against **agreed standard**
- **Credibly**
- Analysing **under-performance**
- **Acting**
- **Re-measuring**
How to get there?

<table>
<thead>
<tr>
<th>Culture</th>
</tr>
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<tbody>
<tr>
<td>Skills &amp; Knowledge</td>
</tr>
<tr>
<td>Leadership</td>
</tr>
<tr>
<td>Systems &amp; policies</td>
</tr>
<tr>
<td>Process redesign</td>
</tr>
<tr>
<td>Celebration of success</td>
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</table>
First discussion regarding changes to system
Realisation that even the committee did not speak the same language
All about data collection and not quality improvement
Conflict existed between incidental research projects versus audit
Spring 2007

We went back to **school**
- Initially all members of TCAG attended a three–day **educational** course on designing and running a clinical audit program

We then rewrote the **textbook**
- Development of structure to include leads in every specialty
- Redesigned every step of the process to imbed the concept of improvement (not counting)
Some Key Issues we addressed

Culture
Where Audit fits in the Accountability framework

- Acting on current best known practice
- Evidence-based practice
- Acting on patients’ and service users’ experiences
- Acting on adverse events
- Clinical risk management
- Patient involvement
- Complaints
- Learning what is best practice
- Research
- Information on Quality and Safety for Accountability
- Acting to maintain current competence
- Appraisal and professional development
- Leadership
- Systems redesign
- Supporting good practice in the work environment
- Quality improvement and clinical audit
- Doing the right things right and acting if not
- If no known best practice?
Culture

• Traditionally seen as
  – a tick box exercise with limited usefulness
  – less prestigious than research

• Changing culture:
  – Attitude:
    • 2 aspects of practising Evidence-based Medicine
    • Improvement from Audit is more immediate
  – Showing usefulness in practice
  – National & international conferences
  – Linking CA to staff appraisal
Research vs Clinical audit

Good Practice – Standards of Care
Determines what is good practice

Good Practice – Checking Tool
Determines if good practice is delivered day-to-day
Research & Clinical Audit: 2 sides of same coin?

Evidence-based Medicine
Some Key Issues we addressed

Training
## 4 levels of training

<table>
<thead>
<tr>
<th>Target</th>
<th>Duration</th>
<th>Mandatory / Open</th>
<th>Emphasis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directorate CA Lead</td>
<td>3 days</td>
<td>M</td>
<td>Leading a CA programme, Best practice of CA</td>
</tr>
<tr>
<td>Service CA Lead</td>
<td>1 day</td>
<td>M</td>
<td>Best practice of CA, Leading programme</td>
</tr>
<tr>
<td>Any staff</td>
<td>1 day (rolling)</td>
<td>O</td>
<td>Best practice of CA</td>
</tr>
<tr>
<td>Central Clinical Governance team</td>
<td>5 days</td>
<td>M</td>
<td>Best practice of CA, Leading programme, Technical aspects</td>
</tr>
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</table>
• Financial Support secured
• External Audit Expert contracted
• All courses included a practical exercise (homework).
• Junior Doctors: special module as part of their teaching.
• Open courses usually over-subscribed
• Feedback is highly positive
What best practice we emphasised?
Choice of topics

- **Objective** directly linked to achieving improvement in quality or safety of patient care
  - Processes/outcomes debate: “processes proven to affect outcome”
  - Evidence-based Guidelines
- Team approach
- Stakeholders involvement
- Potential for change
- Not merely a tool to ask managers for more resources
Clinical team defines clinical audit programme

Clinical team leads improvements
Audit Methodology
Methodology

• Sound principles of selection of appropriate population & sample size (not according to ease or convenience)

• Drawing up of “valid measures” (derived from evidence-based best practice)

• Acceptance of measures & audit design by colleagues before data is collected

• Validation of data collection tool to minimise inter & intra-assessor variability
Ensuring Adherence to Good Methodology

- All Clinical Audit activity has to be approved.
- Applying strict definitions in approval process.
- Peer-review process.
- Guidance and feedback.
## Objective model

<table>
<thead>
<tr>
<th>Verb</th>
<th>Quality focus</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>The intention for doing the audit</td>
<td>The feature(s) of quality to be measured by the audit</td>
<td>The specific care or service the audit is about</td>
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Example of Audit Objective

- To ensure that all patients with neutropenic fever are treated according to hospital protocol

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<td>are treated according to hospital protocol</td>
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Objectives – the 3 Cs

**Counting**
- Determine the number of ...
- Find the rate of ...
- Examine ...
- Evaluate…
- Look at ...
- Audit ...

**Comparing**
- Determine if ...
- Indicate the level of ...
- Assess the extent to which ...

**Changing**
- Increase ...
- Reduce ...
- Ensure ...
- Change practice if ...

Weak ➔ Better ➔ Best
Translating Audit “Objective” to Audit “Measure”

**Objective**

Verb + Quality focus + Specific care or service

Evidence of quality of care or service + Standard + Exceptions + Definitions and instructions for data collection

**Measure**
Example of Audit Measure

- To ensure that all patients with neutropenic fever start broad-spectrum antibiotics as per protocol within 1 hour of presentation to the day unit / ward, unless they have inadequate kidney function.

<table>
<thead>
<tr>
<th>Evidence of Quality</th>
<th>Standard</th>
<th>Exceptions</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting correct Abs within 1 hour</td>
<td>All patients with neutropenic fever</td>
<td>Poor renal function</td>
<td>Patients presenting to Day unit / ward</td>
</tr>
</tbody>
</table>
Enforcing Good Practice through Redefining the process

Clinical audit proposal form
- Initially a paper form - became an electronic
- “Forced fields”:
  - Guide the thinking process
  - embed the need to plan all projects in terms of quality improvement
  - ensure adherence to definitions and appropriate methodology

Clinical Audit Database
<table>
<thead>
<tr>
<th>Service evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realisation that not everything fitted true audit (as no standard) or research (did not extend knowledge) and therefore recognised the idea of Service Evaluation</td>
</tr>
<tr>
<td>Maybe a marriage of convenience, but a way not to lose a great deal of enthusiasm and potential for future audits or research</td>
</tr>
</tbody>
</table>
Clinical Audit v Service Evaluations

• SE include other non-Clinical Audit activities:
  – Observational research
  – Retrospective studies
  – Surveys etc…

• Needs:
  – Proper classification (research v audit v SE)
  – Approval
  – QA
  – Monitoring & Accountability
Beyond Data Collection

- Non-compliance (under-performance) is analysed to find "root causes"
- Team discusses & decides action
- Team implements action
- Rapid measurement to confirm improvement
Cases in the audit

These cases are consistent with the clinical audit measure

Look further at these cases

*If the cases meet the clinical audit measure, there’s no need to look further*
Improving performance
(Caution: may involve change!)
Analysing under-performance

Fishbone diagram

Ask ‘Why’ 5 times

Analyse the process
Deciding on Action

Success depends on —

- **Choosing the right strategy** — appropriate decision-making
- **Doing the right strategy the right way** — effective implementation
How to figure out what’s needed

Problem

What isn’t happening now?

the clinical audit findings

Cause

Why isn’t it happening?

the findings of investigation

Improvement

What do we want to achieve — the level of patient care we want?

the result or outcome

Action

What do we have to do to achieve it?

the process of making change
What has to change to achieve the improvement?

<table>
<thead>
<tr>
<th>Attitude</th>
<th>View or opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>Belief</td>
</tr>
<tr>
<td>Behaviour</td>
<td>Task or step</td>
</tr>
<tr>
<td>Process</td>
<td>The way work is done</td>
</tr>
<tr>
<td>System</td>
<td>How various processes work together</td>
</tr>
</tbody>
</table>
## Policy development

<table>
<thead>
<tr>
<th>Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust Clinical Audit Policy</td>
</tr>
<tr>
<td>Participation in National Clinical Audit Policy</td>
</tr>
<tr>
<td>Training Policy</td>
</tr>
<tr>
<td>Designing An Audit Programme Policy</td>
</tr>
<tr>
<td>Involving Junior Doctors in Audit Policy</td>
</tr>
</tbody>
</table>
Clinical Leadership
Clinical Audit Lead role at a directorate level

- Sit on the Directorate Clinical Governance Committee
- Organise, control and deliver the annual (or rolling) Directorate audit program
- Organise and often chair the monthly departmental meetings
- Vetting & improving audit designs, coaching local areas & cementing local structures
Current structure
# Development of co-chairs

## Workload such that need for co-chairs
- Allow for “chair’s action”
- Provides a pool of expertise

## Additional specific remits
- Annual meeting
- Research
- Liaison with trust committees
- Control of specific trust-wide audits
GSTT-wide audits

- Consent
- Documentation
- Mental Capacity Act

- Use of "clinical champions" to make people sit up and listen
- Moving some from CA to quality improvement project
Control

Attempts to influence existing structures and harness existing audits to make them more effective
Freely given advice and the crystallisation of a reporting system

- Dress code and patient identification
- DNAR
Annual “Audit Celebration Day”

- 2 “Audit Celebration Day” 2009, 2010
- 3rd planned July 2011
- A celebration of good quality CA
- Well attended by senior clinical staff
- Address by GSTT Chairman

- Abstracts invited
- Short listing:
  - All short-listed: posters
  - Top 5: presentation
  - 3 prizes
Summary of actions

- Secured **Organisation** commitment and support
- Adopted **common** understanding & language
- **Trained** Leads, staff and trainees
- Defined **policies** – redesigned **processes**
- Developed proposal **vetting** process
- Enforced clinical **leadership**
- Harnessed the **enthusiasm** of colleagues
- Improved **organization-wide** clinical audits
- **Celebrated** success
Reflections

What worked well?
• Training / Learning a common language
• Leadership & forcing the agenda
• Celebrating success

What did not work as well?
• Involvement of all health professionals to same level
The future — the quality improvement agenda

- Moving audit to quality improvement projects
- Integrating Primary Care
- Better Care for patients
Thank you
Outcome of Audit: Quality of Care is Improving
## The Audit Continuum

<table>
<thead>
<tr>
<th>Stage</th>
<th>No. audits by clinical service</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Designed</td>
<td>10</td>
</tr>
<tr>
<td>Data collected</td>
<td>10</td>
</tr>
<tr>
<td>Changes agreed</td>
<td>6</td>
</tr>
<tr>
<td>Changes implemented</td>
<td>0</td>
</tr>
<tr>
<td>Repeat data collection</td>
<td>0</td>
</tr>
<tr>
<td>Evidence of improvement</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
</tr>
</tbody>
</table>
Measure: Does the clinical audit SAMBA?

- **S**cientifically sound?
- **A**ction-oriented?
- **M**easurable?
- **B**eneficial?
- **A**chievable?