IMPROVING THE LEGIBILITY OF OPERATION NOTES THROUGH AUDIT

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SUMMARY

- **Illegible operation notes had hampered post operative care on several occasions resulting in near miss events**
- **A clinical audit was undertaken to measure the quality and legibility of operation notes**
- **A typed system was introduced to address issues of legibility**
- **The system was re-audited to close the loop. This confirmed that improvements had been made**

OBJECTIVES

'Operation note keeping is fundamental for clinical care and audit of surgical services'

- On several occasions, illegible operation notes had hampered efforts to deal with post-op problems. This had resulted in several "near miss" patient safety events
- With the increasing use of shift based rotas, the operating surgeon is often unavailable in the event of a post-operative problem. The immediate management often falls to a doctor who has not previously met the patient
- The operation note is the detailed record of an operation, completed at the time by the primary surgeon:
  - It details what was found, done, and any problems
  - It is a crucial document in the immediate management of any post-operative complications
  - In addition, it is vitally important when any future surgery is being planned, this often occurs many years later
- The aim was to audit operative note keeping against Royal College of Surgeons guidelines, identify and address any potential areas for improvement, and re-audit to evaluate any change

METHODS – THE TRIAL SOLUTION

This data was presented to the Department for discussion.

- The main problem was with legibility of handwriting and a secondary issue being missing information fields. A number of surgeons expressed a desire to type their operation notes but found this to be too time consuming.
- A typed solution was therefore designed to be:
  - Quicker than (or as quick as) hand writing
  - Easy to use
  - Cost neutral
- Utilising existing IT infrastructure, a shared computer network drive containing pre-typed "templates" for operation notes was set up:
  - Each template contained standard information such as auto-date and time, consultant responsible, standard steps in the operation and post operative instructions
  - The template was formatted to print directly onto existing hospital operation note stationary
  - All fields were fully editable - thus a surgeon had complete control of what was written on every occasion, but commonly used information was pre-typed to speed up the process
  - As surgeons typed new operations, they were saved as templates to expand the template library and facilitate faster writing on the next occasion
- Each individual Consultant and their juniors were given a concise one-to-one training session, and detailed instructions sheets were posted on the walls next to each computer. After a 6 week period of" bedding in" and trouble-shooting, a re-audit was performed to measure any change

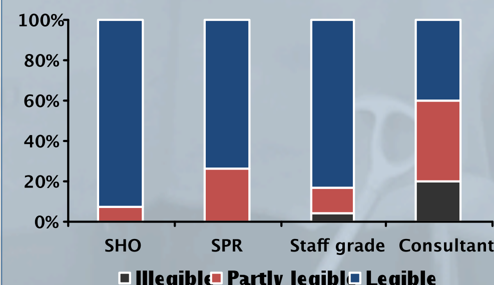
INITIAL AUDIT

- The project was undertaken across the elective theatres of a General Surgical Department of a UK District General Hospital
- In Feb 2010, the operation notes from 113 consecutive operations were audited against guidelines for 'Medical Records and Notes' issued by the Royal College of Surgeons of England
- In addition, the number of abbreviations used and the overall legibility of the document were recorded
- The audit was undertaken by an F1 level doctor. This is the grade of doctor who would first assess a patient in the event of a problem

AUDIT FINDINGS

- 1/3 of notes were considered illegible/partly illegible
- 2/3 of notes contained abbreviations, of which
- 9% of abbreviations were not understood at F1 level
- 1/5 did not contain any post-operative instructions
- 1/2 identified the Consultant responsible
- Legibility worsened with increasing seniority (60% of consultant written operation notes being partly to completely illegible) as shown in the graph below

Graph of Legibility by Grade



RE-AUDIT

- After the intervention, re-audit revealed that about 1/3 of surgeons were using the new typed system
- The use of abbreviations had significantly reduced, and operation notes were being more fully completed – in particular, 100% of patients had post-operative instructions documented
- No notes were considered to be illegible, although 25% remained only partially legible

	Initial Audit % (n=110)	Re-Audit % (n=63)
% containing abbreviations	66	10
% Illegible	8	0
% Partly legible	26	25
% Typed	0	38.3
Patient ID	100	100
Procedure preformed	100	100
Signature	99	100
Date	98	100
Time	0	38.3
1st surgeon identifiable	95	100
Incision used	94.1	100
Suture details (N=58)	96.6	100
Post-op instructions	81.9	100
Signature identifiable	66.3	100
Consultant responsible	47.7	46.6

CONCLUSIONS:

- This project has succeeded in improving the quality of written communication in our department through implementing a cost-neutral solution
- Review of the solution identified some minor further logistical problems which require a degree of investment to address, before wider adoption is likely. However, a degree of the success may be because simply highlighting the problem brought about some improvement.
- The clinical audit cycle is an effective way of experimenting with small scale improvement projects. The data gathered and experiences of implementation form useful pilot data when approaching Trust level management to seek wider policy change with appropriate investment