Supplemental page 1

Reflexivity detail

The primary reviewer (ZB) is a frontline clinician, who felt embarrassment and disappointment during the collection and analysis phases of this research, by the lack of attention to detail, disregard for undertaking statutory requirements and often indifference demonstrated by NSCTs. It appeared to ZB that some NSCTs see the LfDs programme as another regulatory requirement and not as an opportunity to improve care for future patients. ZB understands the challenges of working in frontline healthcare and appreciates that NSCTs have many competing programmes and issues to manage. ZB shared these reflections and concerns during meetings with the other authors, this process of team-based discussion helped identify assumptions and cross check interpretations.

Supplemental page 2

'What does 'learning' mean?'

Even an understand of what is meant by learning is variable, one NSCT lists 'learning' in a seemingly nebulous format, with no further details describing these topics:
'*We have disseminated learning on a number of thematic lessons using a modality of communication systems:*

- *Sepsis Care Bundles*
- *Fluid management*
- *Appropriate management of pleural effusion'*

A different NSCT does not describe any learning, but instead states: *'The learning from these is utilised for quality improvement projects'* learning is sometimes unrelated to patient deaths or even clinical care, as demonstrated by one NSCT LfDs report:
'Here are some of the things that we have learnt and implemented:
• Quality Academy - Clinical Coding project - Two Junior Doctors (SAMP) to investigate the 'R' Code (signs & symptoms) coding issue.
• Prioritised Coding – Bereavement notes are prioritised for coding which supports the mortality review process.'

While NSCTs do realise that they are required to 'learn' it does not appear that they necessarily understand what effective learning from deaths is or how to describe it in any detail. In addition, learning, actions and assessment of impact are frequently merged together, resulting in confusing and amorphous reporting. Another feature of the LfDs reports from some NSCTs is the overwhelmingly positive learning, with some NSCTs describing only positive learning despite reporting deaths due to problems in care: '*Feedback from bereaved relatives is overwhelmingly positive with 30% of all compliments being sent as excellence reports to ward staff and named individuals.'* Of the question of whether learning is actually happening, one NSCT stated: *'In relation to learning from the structured judgement review processes the following has been highlighted and replicate data from last year'* Implying that the same problems keep reoccurring.

'Undertaking a thematic analysis'

Some NSCTs have undertaken grouping of common themes arising and described this as a 'thematic analysis', none have given details about the methodology used. The themes (domains) arising from these analyses are in line with those from this larger review and earlier reports as described in the introduction. One example of this: *'Incident themes: Communication, Clinical management, Review & escalation, Process & policy, Documentation, Operational, Medication'* However the thematic analysis in itself can make learning, especially shared learning more difficult, due to reduction in detail given in some (but not all) reports.

‘Opportunities to triangulate’

Several NSCTs have missed the opportunity to bring together information which could inform learning in their LfDs report. For example reporting no deaths due to problems in care despite being issued PFD reports and/or not describing learning from the PFD reports in their LfDs report. One example from a PFD report describes problems with acute physical assessment and examination in the Mental Health setting. The death of this patient and subsequent learning from the Coroner’s office is not acknowledged in either the expected LfD report.[32] Other NSCTs do acknowledge PFD reports in their LfDs report, but don’t necessarily explain what if anything they have learnt from this.

Some NSCTs do appear to triangulate data, for example learning acquired through the Dr Foster Diagnosis Alerts or associated with HSMR and/or SHMI. One NSCT noted ‘*The themes that emerge from SJRs are representative of the themes and trends that are seen in complaints, incidents and claims’* and another describes ‘*The trust’s Datix incident reporting system is aligned to the Learning from Patient Deaths Policy’*

In NSCTs where Quality Improvement is fully embedded in their standard functioning have been able to successfully tie in LfDs with other work: ‘*Strong inter-relationship of our SI, SJR and improvement programmes, for example our VTE work where SJR and root cause analysis processes have helped to identify key challenges and drive forward improvement’* thus ensuring greater success of the programme and benefits for patients.

‘Feeling the pressure’

Systems issues and lack of resources feature surprisingly infrequently in LfDs reports, however in 2019/20 one NSCT explicitly stated that these factors were problematic: ‘*Overload is a significant theme to the cases that have been noted. It is typically present as a contributory factor rather than the only issue. It links to NIV beds, to recognition of pelvic bleeds and to extended stay in A/E. Its also linked to omitted drugs and to sepsis care. When considered across organisations its also linked to complex system failure where beds are too full to receive transfers’* Another NSCT reported issues with bed availability for Mental Health patients: *‘The service transformation teams continue to work in relation to bed capacity and demand which aims to introduce a crisis house and an urgent care centre which should impact upon the prioritisation of beds’*

‘Description of the incident/problem’

One of the main issues found from reviewing LfDs reports was the difficulty in understanding what exactly the problem in care was, that may have contributed to the patients death. Very few trusts described individual incidents/cases, but where they did it enables better understanding of what happened, thus enabling shared learning:

- Incident – ‘*death from haemopericardium caused by dissection of the ascending aorta.*
    - Learning/action - *Improve awareness of this rare diagnosis among all ED staff through ongoing teaching sessions and safety briefings.’*
- Incident – ‘*There was a missed diagnosis of small bowel obstruction in a patient resulting in aspiration and cardiac arrest, with unsuccessful resuscitation’*

  - Learning – '*The missed diagnosis was due to lack of recognition of the significance of symptoms of pain and persistent vomiting in the context of reassuring National Early Warning System (NEWS) scores and apparent initial response to treatment'*
  - Action – *'As a result of this incident new guidelines for the management of small bowel obstruction have been completed. Processes for recognition and treatment will be embedded into local assessments and practice. Training in the diagnosis and initial treatment of acute surgical conditions and new guidelines'*
- Incident – *'There have been some cases where we have not detected intra-uterine growth retardation (IUGR), and so have not carried out the correct monitoring and support'*
  - Learning – *'This issue has arisen due to poor scan quality in some cases, and due to interpretation biases arising from human factors in other cases'*
  - Action – *'We are carrying out an audit of missed IUGR to inform future practice'*

One NSCT laid out the incident/learning/actions in tabular format, making what happened, what has been learnt and what has occurred as a result of that learning (action) clear.

'The importance of culture'

Very few NSCTs remarked upon the importance of improving culture or providing a 'Just Culture':

- *'By building and nurturing an improved culture, new ways of thinking and working can be introduced, but these new ways will only become embedded within the team if they enable people to work more effectively than before'*

'To ensure that the mortality review process leads to meaningful and effective actions that continually improve patient safety and experience operating within a 'Just Culture' framework'

Supplemental page 3

Quality Accounts with quotes in paper

- Pennine care NHS Foundation trust Quality Account 2019/20
- North Middlesex University Hospital NHS Trust Quality Account 2018/19
- Nottinghamshire Healthcare NHS Foundation Trust Quality Account 2019/20
- Chelsea and Westminster Hospital NHS Foundation Trust Quality Account 2019/20
- University Hospitals Plymouth NHS Trust Quality Account 2019/20
- Avon and Wiltshire Mental Health Partnership NHS Trust Quality Account 2019/20
- Gloucestershire Care Services NHS Trust Quality Account 2018/19
- King's College Hospital NHS Foundation Trust Quality Account 2019/20
- Bradford District Care NHS Foundation Trust Quality Account 2018/19
- Worcestershire Health and Care Quality Account 2017/18
- University Hospitals of Derby and Burton NHS Foundation Trust Quality Account 2018/19
- Coventry and Warwickshire Partnership NHS Trust Quality Account 2018/19
- Royal Devon and Exeter NHS Foundation Trust Quality Account 2018/19
- Devon Partnership NHS Trust Quality Account 2017/18
- York Teaching Quality Account 2018/19
- Liverpool Heart and Chest Quality Account 2018/19
- Liverpool Heart and Chest Quality Account 2019/20
- Sussex Partnership Quality Account 2019/20
- Taunton & Somerset Quality Account 2019/20
- Epsom Quality Account 2019/20
- Gateshead Health Quality Account 2019/20
- Pennine Care Quality Account 2019/20
- Western Sussex Quality Account 2019/20
- Portsmouth Quality Account 2019/20
- ULH Quality Account 2019/20
- Basildon Quality Account 2019/20
- Warrington Quality Account 2019/20
- Buckinghamshire Quality Account 2019/20
- East & North Herts Quality Account 2019/20
- Pennine Care Quality Account 2019/20
- Midlands Partnership Quality Account 2018/19
- Midlands Partnership Quality Account 2019/20
- Wirral Community Quality Account 2019/20
- Western Sussex Quality Account 2019/20
- Bradford Teaching Quality Account 2019/20
- WWL Quality Account 2019/20
- Birmingham and Solihull MHT Quality Account 2019/20
- York Teaching Quality Account 2019/20
- University College London Hospitals NHS Foundation Trust Quality Account 2019/20
- BWCH Quality Account 2019/20
- Hampshire Hospitals Quality Account 2019/20

- St Helens Quality Account 2019/20
- Cornwall Partnership Quality Account 2019/20