East Leicestershire and Rutland Clinical Commissioning Group
Leicester City Clinical Commissioning Group
Leicestershire Partnership NHS Trust
NHS England (Leicestershire & Lincolnshire Area)
University Hospitals of Leicester NHS Trust
West Leicestershire Clinical Commissioning Group

Learning Lessons to Improve Care

A joint review of the quality of care delivered to patients who died in Leicester, Leicestershire and Rutland (LLR) in 2012-13

Summary Document

July 2014

1. Executive Summary

The Summary Hospital-Level Mortality Indicator (SHMI) of University Hospitals of Leicester (UHL) NHS Trust has been at or slightly above 1.05 since 2010/11. Although a SHMI of 1.05 (compared to a national average of 1.0) is within the expected range of NHS hospitals, local NHS organisations chose to request a joint primary and secondary care case records review of patients who died during the year of 2012/13, to ensure the care provided locally was of an acceptable standard.

In order to identify areas where the care delivered in Leicester, Leicestershire and Rutland (LLR) could be improved, local doctors and nurses reviewed the case records of a focused sample of patients who died in hospital or within 30 days of discharge following an emergency admission to UHL NHS Trust.

Reviewers found significant lessons to learn for all healthcare partners in 208 (55%) of the 381 cases reviewed, which included 89 cases (23%) where care was considered to be below an acceptable standard.

Comments made by reviewers as to how and where issues occurred in the 208 cases identified as having significant lessons to learn were grouped into themes. 47 themes were identified overall, which were ranked according to how many cases were affected.

The issues identified were wide-ranging and 99 of the 208 cases (48%) with significant lessons to learn involved more than one theme.

Furthermore, 23 of the 89 cases (26%) where care was considered to be below an acceptable standard involved services delivered in two or more local health and social care organisations. These data reflected how dependent the different organisations which make up the health and social care system in LLR are on each other and led reviewers to the conclusion that care quality must be improved not by addressing the issues individually, but by looking at the healthcare system as a whole.

'Issues, Challenges and Next Steps', which the LLR healthcare community would need to address in order to improve patient care, were identified following the review. These next steps included:

- Convincing People that the Problem is Theirs
- Getting Data Collection and Monitoring Systems Right
- Shifting Organisational Context and Culture
- Maintaining Momentum
- Convincing People that by Working Together a Solution can be Found
- Making Changes that are Achievable and Sustainable
- Leadership, Oversight and Co-ordination
- Considering the Side Effects of Change

A vision document entitled 'Reflection from the Future' was completed which recommended the development of a LLR-wide healthcare 'co-operation association' through which all health and social care would be planned and delivered jointly by local organisations, with a focus on patient need and care quality and with input from patients and practitioners.

2. Background for the Review

The quality of healthcare services is assessed using a number of different quality measures. One measurement of the standard of care provided in hospitals used nationally is the Summary Hospital-Level Mortality Indicator (SHMI)[1].

Since the publication of the SHMI for NHS Trusts in England in March 2011, University Hospitals of Leicester (UHL) NHS Trust's SHMI has been at or slightly above 1.05. Although a SHMI above 1.00 does not mean that UHL NHS Trust is providing poor care, it is recommended that further investigation into the hospital's performance is undertaken to ensure that the care provided is at an acceptable standard[2].

NHS England, on behalf of the Clinical Commissioning Groups for Leicester, Leicestershire and Rutland (LLR), Leicestershire Partnership NHS Trust (LPT) and UHL NHS Trust, requested the University of Leicester undertake a retrospective (historic) case record review to better understand whether there were common clinical issues and/or errors in the care received by patients who had died within the LLR healthcare system. It was understood that, should no common clinical issues and/or errors be identified, that further investigation into the data submitted by UHL to calculate the SHMI may be required.

The retrospective case record review was undertaken not to challenge the reported excess in the number of deaths in patients who receive care from UHL NHS Trust, or any other organisation providing health or social care services in LLR; rather it was completed as best practice to identify any areas where care and patient experience may be improved.

3. Context for the Review

From the outset, it was agreed that the review would look at the care provided by all NHS organisations in Leicester, Leicestershire and Rutland (LLR) and that the findings would have implications for all of the organisations involved.

It was therefore decided that a joint primary and secondary care case records review would be undertaken in which doctors and nurses from primary care, community health services and hospitals review primary care, community health and hospital case records together.

This type of joint review of NHS healthcare records has not been attempted before and so it was difficult to anticipate the findings or compare the findings with other reviews. Where previous reviews have included random patient samples, been completed by doctors only and focussed on the care delivered/deaths in hospitals, this review looked at a specific patient group, the care delivered in both the community and hospital setting, included patients who died up to 30 days after discharge from hospital and used nurses and doctors to retrospectively assess the standard of care provided.

[1] SHMI average value for all NHS Trusts for England is 1.00. Values more than 1.00 suggest a higher than expected number of deaths (after consideration of relevant differences in the patients). Values less than 1.00 indicate fewer deaths than expected.
[2] Health and Social Care Information Centre. (2014) *Summary Hospital-level Mortality Indicator (SHMI) – Frequently Asked Questions (FAQs)* (available at http://www.hscic.gov.uk/media/9926/SHMI-FAQs/pdf/SHMI_FAQ.pdf).

4. Summary of the Review Process

49 doctors and nurses from local primary, community and secondary healthcare services reviewed 381 selected case records. The records were of patients admitted to UHL NHS Trust as an emergency and subsequently died in hospital, following an attempt at resuscitation or in the Intensive Therapy Unit, or within 30 days of discharge from hospital after changing their postcode or registered GP. The change of postcode was assumed to demonstrate a move by the patient from independent living to supported living (e.g. move into a care home). This approach was used to select the cases most likely to help reviewers identify issues and/or errors that may exist across local healthcare services.

Each case record was reviewed by a pair of local doctors, one from primary care and the other from secondary care, and then discussed with the medical co-ordinator of the review. Only those case records that the doctors agreed had no 'significant lessons to learn' were reviewed by a pair of local nurses, one from community healthcare and the other from secondary care, who then discussed their findings with the nursing co-ordinator of the review.

The data collected during the review was managed in two ways. Any numerical data was collated and analysed to help identify trends in the care provided. The comments made by reviewers about how and where the issues occurred in the delivery of care were examined to identify common areas or 'themes'.

5. Questions to be answered by the Review

The primary question was the proportion (percentage) of cases reviewed that had clinical care of at least an acceptable standard.

The secondary question was whether there were significant lessons that could be learnt from the clinical care provided.

5.1. Primary Question: Was the Clinical Care of at Least an Acceptable Standard?

'Clinical care' was defined as the processes of healthcare or social care services that affect a patient's experience and/or the probability of an outcome for a patient. When deciding whether care was of an acceptable standard or not, the reviewers considered the implications for the patient's experience or the probability of outcomes for the patient rather than whether the care would be considered as customary or usual practice.

The acceptable standard of care was considered as the absence of error. So, for care to be considered as not acceptable, an error had to be identified. The reviewers used the definition of error described by the Institute of Medicine's Committee on Quality of Health Care in America in its report *To err is human – building a safer health system* (page 54)[3]:

[3] Kohn LT, Corrigan JM, Donaldson MS (eds) on behalf of the Committee on Quality of Health Care in America, Institute of Medicine. *To err is human – building a safer health system.* Washington DC: National Academy Press; 2000.

"Error is defined as the failure of a [correctly] planned action to be completed as intended (i.e. error of execution) or the use of a wrong plan to achieve an aim (i.e. error of planning)."

Note that an action or inaction does not have to be linked with an adverse event for it to be considered an error. So, the reviewers were not looking for adverse events or serious untoward incidents, nor were they looking to attribute blame to any practitioner or organisation. However, they were looking for errors of action or inaction. The theory is that a pattern of repeated errors reflects shortcomings in the systems of care, even if a patient was not harmed in a particular case.

5.2. Secondary Question: What Significant Lessons can be Learnt from the Care?

Any significant lessons that could be learnt from a case were described by the reviewers under one or more of the following headings:

- **"Failure to Interpret"** refers to the initial assessment of the patient and the failure to realise that an adverse event had happened or could happen based on what would reasonably be expected to be ascertained in the situation.

- **"Failure to Investigate"** refers to the follow-up of the patient after the initial assessment. This includes observations to monitor the patient, as well as laboratory tests, imaging or referral.

- **"Failure in Instruction"** refers to the conveying of information for others to take action once it is realised that such actions are necessary. The features of good communication are accuracy, completeness, relevance, clarity and timeliness.

- **"Failure in Information"** refers to the conveying of information for others to take note rather than for action. The features of good communication are accuracy, completeness, relevance, clarity and timeliness.

- **"Failure to Implement"** refers to the actions that should take place based on appropriate instructions conveyed correctly.

From the comments made by reviewers, issue 'themes' were identified.

Further details of the methods used to complete the LLR Joint Mortality Review and examples of the reviewer comments which were used to identify system themes can be found in the 'Case Records Review' document.

6. Summary of the Results of the Review

6.1. Answers to Review Questions

Reviewers found significant lessons to learn in 208 (55%) of the 381 cases reviewed, which included 89 cases (23%) where care was considered to be below an acceptable standard.

Of the 208 cases identified as having significant lessons to learn, 175 involved UHL NHS Trust, 54 involved primary care and 37 involved community or social care. 48 of the 208 cases (23%) involved services delivered in two or more local health and social care organisations, showing how dependent the various organisations which make up the health and social care system in LLR are on each other.

Of the 89 cases where care was considered to be below an acceptable standard, 79 involved UHL NHS Trust, 25 involved primary care and 15 involved community or social care. 23 of the 89 cases (26%) involved services delivered in two or more local health and social care organisations, again showing how dependent the various organisations which make up the health and social care system in LLR are on each other.

It should be recognised that different healthcare organisations manage patients with different levels of risk. The risk of an error occurring during care delivery increases as: the complexity of the patient's condition or required intervention increases, the number of contacts with healthcare professionals increases and the number of clinicians involved in the delivery of care increases. It was therefore not surprising to find that the greatest number of errors/issues was identified in UHL NHS Trust.

6.2. Issues Identified

Comments made by reviewers as to how and where issues occurred in the 208 cases identified as having significant lessons to learn were analysed and grouped into themes. 47 themes were identified overall, which were ranked according to how many cases were affected. The 'Top Twelve' themes, reflecting the most common issues in health and social care delivery in LLR, were identified as:

System Theme	Number of cases with the theme
DNAR orders[4]	45
Clinical reasoning	41
Palliative care	30
Clinical management	24
Discharge summary	19
Fluid management	18
Unexpected deterioration	16
Discharge	14
Severity of illness	13
Early Warning Score	11
Antibiotics	11
Medication	11

However it is of note that 99 of the 208 cases (48%) with significant lessons to learn involved more than one theme, i.e. nearly half of the cases with significant lessons to learn involved more than one issue.

[4] DNAR (Do Not Attempt Resuscitation) orders are legal orders which tell a medical professional or team not to perform Cardiopulmonary Resuscitation (CPR) on a patient if their heart stops or if they stop breathing (further information is available at http://www.gmc-uk.org/guidance/ethical_guidance/end_of_life_DNACPR_decision.asp).

From the data analysed it was clear that patients did not always receive the type of care they needed due to issues in the way the local healthcare system is organised. 70 (34%) of the 208 cases with significant lessons to learn received acute (emergency) care when the reviewers felt that palliative or end of life care would have been more appropriate. These data suggest that local healthcare services need to improve their ability to identify patient's health and social care needs and work together to ensure the system can provide the care required.

6.3. Review Conclusion

Reviewing cases identified issues and themes and it is of note that more than half of the cases with significant lessons to learn involved more than one issue. This suggested to reviewers that care quality must be improved not by addressing the issues individually, but by looking at the healthcare system as a whole.

The review therefore recommended that system-wide co-operation and collaboration was needed to identify solutions and make improvements to the care delivered across LLR. The solutions would need to take into account the more challenging aspects of healthcare delivery, such as organisational culture, and would need to be generated by those that work within and use the local health and social care system.

Full results and definitions of system themes from the LLR Joint Mortality Review can be found in the 'Case Records Review' document.

7. Summary of the Action Planning Process

Following completion of the review, NHS England requested that an action plan be developed to address the issues identified by the Leicester, Leicestershire and Rutland (LLR) Joint Mortality Review.

20 local doctors and nurses who participated in the original review returned to help the University of Leicester create an action plan based on data and comments collected during the review process. The reviewers were reminded of the issues which formed the Top Twelve themes and asked to identify the challenges the current healthcare system would need to overcome in order to improve care.

Further details on the action planning process, and for examples of reviewer comments and proposed solutions, please see the 'Issues, Challenges and Next Steps' document.

8. Summary of Review Recommendations: Issues, Challenges and Next Steps

The eight Challenges to Quality Improvement identified by the 20 reviewers who returned to create an action plan following the Leicester, Leicestershire and Rutland (LLR) Joint Mortality Review are outlined below.

A number of steps were identified to enable the healthcare organisations of LLR to overcome the challenges and provide quality health and social care to all:

Challenge[5]		Next Steps
Challenge 1:	Convincing People that the Problem is Theirs	a) Wide dissemination and discussion of implications of the LLR Joint Mortality Review. b) Mapping interdependencies of health and social care services from the perspectives of the people in LLR at a strategic (including financial) and operational level.
Challenge 2:	Convincing People that by Working Together a Solution can be Found	a) Wide dissemination and discussion of the 'Challenges for Quality Improvement' and 'Reflection from the Future'. b) Wide dissemination and discussion of health and social care interdependencies map.
Challenge 3:	Getting Data Collection and Monitoring Systems Right	a) Creation of cross-sectoral patient-based data collection and monitoring systems based on a single universal identifier such as NHS number. b) Training and development of all practitioners in Quality Improvement so that they can make sense of and use patient-based data.
Challenge 4:	Making Changes that are Achievable and Sustainable	a) Alignment of funding with data regarding health need and effectiveness of care. b) Involvement of public and patients in service development.
Challenge 5:	Shifting Organisational Context and Culture	a) Wide dissemination and discussion of the descriptions of significant lessons to learn identified in the LLR Joint Mortality Review. b) Creation of cross-sectoral fora for practitioners to develop integrated services.
Challenge 6:	Leadership, Oversight and Co-ordination	a) Training, development and support of all staff in Service Development. b) Creation of cross-sectoral 'co-operation associations'[6] for service providers to deliver consistent good quality care for all.
Challenge 7:	Maintaining Momentum	a) Development of mechanisms to encourage and disseminate effective innovation. b) Monitor progress by a LLR Joint Mortality Review of cases occurring in 2016/17.
Challenge 8:	Considering the Side Effects of Change	a) Adoption of an open culture in which deviation is reported early. b) Development of risk register to identify and address issues arising from change.

[5] Adapted from Dixon-Woods M, McNicol S, Martin G. (2012) *Overcoming challenges to improving quality. Lessons from the Health Foundation's improvement programme evaluations and relevant literature* (available at http://www.health.org.uk/public/cms/75/76/313/3357/overcoming%20challenges.pdf?realName=HGHuMk.pdf).

[6] 'Co-operation associations' (aka '*kyoryoku kai*') are from Japanese manufacturing industry in which multiple suppliers/providers work with each other and their purchaser/commissioner to deliver products/services to agreed specifications/goals sharing knowledge and expertise with joint learning and development.

9. Summary of Vision: Reflection from the Future

'Reflection from the Future' is a vision document written to illustrate how health and social care in Leicester, Leicestershire and Rutland (LLR) could be delivered if the recommendations outlined in the 'Issues, Challenges and Next Steps' document were accepted and actioned.

The document describes a LLR-wide health and social care 'co-operation association', through which health and social care is planned and delivered jointly, with a focus on patient need and quality of care. The vision outlines how discussions and decisions about health and social care in LLR should involve every level of staff and every organisation affected, directly or indirectly, by the care process – including patients.

In the document the 'co-operative association' employs a funding system which rewards innovation and an education system which shares best practice to allow all of the organisations which form the 'co-operation association' to benefit equally and for patient care to be improved.

The vision relies on working relationship based on trust, quality and dependence which allows the 'co-operative association' to develop health and social care services which are organised, innovative, effective and high quality.

10. Summary of LLR Healthcare Provider Response

In response to the review findings, and subsequent recommendations and vision documents, the Clinical Commissioning Groups for Leicester, Leicestershire and Rutland (LLR), Leicestershire Partnership NHS Trust (LPT) and UHL NHS Trust completed two exercises:

10.1. Joint LLR Quality Review Action Plan

The first exercise outlined six priority areas for healthcare improvement in LLR. The Joint LLR Quality Review Action Plan also identified current quality improvement initiatives anticipated to address the priority areas and gaps where further work would be required. Opportunities for collaborative working were highlighted and deadlines for action jointly agreed. The six priority areas jointly agreed were:

- Advance Care Planning co-ordination (including DNAR orders, palliative care and end of life care)
- Use of, and compliance with, best practice policies and guidelines
- Patient-centred care for the frail older person
- Ensuring ongoing learning and feedback
- Completion of Individual Organisation Action Plans (see 10.2)
- Development of joint long term action plan to reflect recommendations outlined in Issues, Challenges and Next Steps document

10.2. Individual Organisation Quality Review Action Plans

The second exercise was the completion of individual action plans by the LLR Clinical Commissioning Groups, LPT and UHL NHS Trust detailing their role in the review response and the specific actions required by them to realise the Joint LLR Quality Review Action Plan.

A commitment was also made by all of the healthcare organisations involved in the review to use the review findings for educational purposes and share the learning across all organisations to improve healthcare planning and delivery in LLR.

11. Acknowledgements

The 49 doctors and nurses who participated in the Leicester, Leicestershire and Rutland (LLR) Joint Mortality Review would like to express their gratitude to the patients whose case records were reviewed and analysed. Each of the reviewers was personally touched by the experiences, both good and bad, of the patients described in the case records and are committed to ensuring lessons are learned from the review and that health and social care across LLR is improved.

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12. Bibliography

This document is a summary of original review documents and action plans, namely:

1. Leicester, Leicestershire and Rutland (LLR) Joint Mortality Review: Case Records Review (24 July 2014)

2. Joint LLR Quality Review Action Plan (July 2014)

The above documents are available on the following websites:

www.eastleicestershireandrutlandccg.nhs.uk

www.leicestercityccg.nhs.uk

www.leicestershospitals.nhs.uk

www.leicspart.nhs.uk

www.westleicestershireccg.nhs.uk

3. LLR Joint Mortality Review: Critique and Comparison (18 March 2014)

4. LLR Joint Mortality Review: Issues, Challenges and Next Steps (24 July 2014)

5. LLR Joint Mortality Review: Reflection from the Future (18 March 2014)

6. Individual LLR Organisation Action Plans

The above documents are available from:

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