Internal Audit

NHS Lothian

Scottish Morbidity Records (SMRs) & Information Services Division (ISD) Reports

June 2019

Internal Audit Assurance Assessment:

Objective One	Objective Two	Objective Three	Objective Four
Moderate Assurance	**Moderate Assurance**	**Significant Assurance**	**Moderate Assurance**

Timetable

Date closing meeting held: 5th April 2019

Date draft report issued: 12th April 2019

Date management comments received: 28th May 2019

Date Final report issued: 4th June 2019

Date presented to Audit and Risk Committee: 17th June 2019

Contents

1. Introduction

1.1 NHS Lothian is responsible for the submission of accurate and timely Scottish Morbidity Records (SMRs) data to Information Services Division (ISD) of NHS National Services Scotland (NSS). An SMR is a record of healthcare received during an episode along with the nature and/or status of the patient. The accuracy of SMRs lies jointly with clinicians and coding staff, with clinicians responsible for ensuring all relevant information is available for the coder to code the record. SMRs are recorded in NHS Lothian's system TrakCare and are submitted electronically to ISD.

1.2 SMR data is important to inform national statistics and is used for research, providing feedback to clinicians on their patients and can help monitor national outcomes and targets. In addition, it is used by NHS Lothian's Analytical Services to provide NHS Lothian with robust and actionable information, informing areas for improvement and progress against targets. There are four different types of SMR, as shown below:

- SMR00 (New outpatient attendances only)
- SMR01 (Acute inpatients & day cases and separately for Geriatric Long Stay)
- SMR02 (Obstetrics)
- SMR04 (Mental Health Inpatients)

1.3 The ISD monitors the submissions of SMRs from NHS Boards, including NHS Lothian, in order to provide data users with a measure of accuracy, completeness and timeliness of the records relating to clinical coding. They provide NHS Lothian with quarterly reports considering the completeness of the submissions of hospital records. In addition, ISD perform national data quality audits on SMRs and local data quality audits across NHS Lothian's acute sites. The reports include recommendations from ISD and required actions for NHS Lothian.

1.4 There is a risk that NHS Lothian may not have adequate controls in place around the processes which ensure that the recommendations and key action points identified by ISD in relation to SMRs are being appropriately monitored and actioned with clear reporting lines, action logs and tracking of progress against those actions.

Scope

2 As part of the audit we assessed the design and operation of the controls in place at NHS Lothian over the submission of SMRs to ISD. We considered the design and operation of controls around how the information from quarterly reports and data quality audits is processed and monitored internally, once received from ISD. A complete list of documents reviewed as par tof the

Acknowledgements

2.1 We would like to thank all staff consulted during this review for their assistance and cooperation.

2. Executive Summary

Summary of Findings

2.1 The table below summarises our assessment of the risks and the adequacy and effectiveness of the controls in place to meet each of the risk areas agreed for this audit. Definitions of the ratings applied to each action are set out in Appendix 1.

No.	Control Objective	Control objective assessment	Number of actions by action rating			
			Critical	High	Medium	Low
1	There are roles and responsibilities with regards to when ISD monitoring reports are received, with clear reporting lines in place	**Moderate Assurance**			1	
2	Errors preventing SMR submissions are identified and corrections are implemented in a timely manner	**Moderate Assurance**			1	
3	NHS Lothian consider their position compared with other NHS Boards and investigates any outliersRs	**Significant Assurance**				1
4	There is clear ownership and accountability around the actions identified within ISD reports	**Moderate Assurance**			1	
TOTAL			-	-	3	1

Conclusion

2.2 The review comprised of four control objectives, of which three received Limited Assurance, with one receiving Significant Assurance.

2.3 Actions highlighted within ISD reports relate to various departments within the organisation including eHealth, the Coding Team and clinical/front line staff who all have different reporting lines to management. There is no clear responsibility, reporting lines or oversight of the whole process of correcting errors and addressing actions within ISD reports. Staff in the different departments take responsibility for their own part, however, some actions are left unassigned and not followed up on. This should be addressed through assigning responsibility of the process to a person/group who has oversight of the whole process and by defining internal reporting lines.

Main findings

2.4 Roles and responsibilities in relation to receiving ISD reports and addressing actions are not defined, with no clear reporting lines to support this. Responsibilities and reporting lines for each department and individual should be defined in regard to correcting submission errors and receiving ISD reports.

2.5 Errors within SMR data, preventing their submission, can relate to data input by front line staff, inconsistencies in data suggesting coding errors and fixes in TrakCare or supporting records such as patient addresses or GP details. Errors identified are available in an extract report after submission, however, a process for addressing all error corrections has not been fully established, with most of these being addressed by the Clinical Coding Team and eHealth System Admin, but the remainder not always being addressed, especially with outpatient records (SMR00s) which have no assigned responsibility. Responsibility for monitoring and addressing all errors should be assigned and progress against this should be included within internal reporting. In addition, root cause analysis of recurring errors should be performed with corrective action taken such as staff training, upgrading TrakCare etc. to prevent this from happening going forwards.

2.6 ISD audits and reports include actions for NHS Lothian to address and these are currently addressed by individual departments, but responsibility for all not assigned or followed up on. There is a risk that without an action log detailing the planned action against ISD recommendations, responsible owner and due date these will not be addressed effectively and improvements to SMR quality are not made.

3. Management Action Plan

Control objective 1: There are roles and responsibilities with regards to when ISD monitoring reports are received, with clear reporting lines in place	
1.1: There is a lack of clarity over who has responsibility for receiving ISD reports, addressing actions and errors, with reporting lines not defined.	**Medium**

Background:

ISD provide NHS Lothian with quarterly reports considering the completeness of the submissions of hospital records. In addition, ISD perform data quality audits on SMRs across NHS Lothian's acute sites providing an opinion on the accuracy of records. ISD hold bi-annual meetings with NHS Lothian to discuss key issues and/or upcoming data audits, which are attended by a representative from the Clinical Coding Team and Analytical Services.

The quarterly monitoring reports are received by the Chief Executive, Medical Director, Head of Health Records, Director of eHealth and the Assistant Director of Healthcare Planning.

ISD data quality audits are managed by the Clinical Coding Team Leader, who reports to the Head of Health Records. Final reports are communicated to the Medical Director.

Bi-annual meetings with ISD are attended by the Head of Health Records, the Clinical Coding Team Leader and the Strategic Programme Manager within Analytical Services.

Observation and Risk:

The ISD monitoring reports and data quality audits affect a number of individuals within different departments, including Health Records, Analytical Services, eHealth and clinical staff throughout NHS Lothian. Actions from these reports include clinical staff recording co-morbidities during episodes of care in discharge letters, coding staff ensuring they review all patient records and TrakCare requiring upgrades.

Although ISD monitoring reports and audits are circulated to relevant individuals, there is no formal process setting out who is responsible for considering these and ensuring actions within have been addressed, with meetings being held between departments but no minutes of meetings or action logs to support this. Currently each department addresses actions relevant to them through their own procedures, such as the Clinical Coding Team updating their processes. However, the effectiveness of actions is not monitored and there is no oversight of this process, with actions for clinical staff being communicated via email but not followed up.

As a result, reporting lines and responsibilities are not clear and there is a risk that not all actions from ISD reports are appropriately addressed and issues with quality and timeliness of data potentially recurring. In turn data submitted to ISD and used by NHS Lothian to inform Analytical Services may not be up to date or accurate.

Recommendation:

Responsibility for overseeing ISD monitoring reports, data quality audits and attending meetings with ISD should be formalised and assigned to an individual or group with sufficient oversight.

This individual/group would assign responsibility to individuals within each department and be responsible for ensuring actions are being addressed by each through internal monitoring.	
Management Response: The process to extract information from individual records, upload to ISD and address any data quality issues is a complex one, and the responses in support of these have developed over time. **Management Action:** A formal process setting out actions and responsibilities will be developed.	
Responsibility: Tracey Gillies	**Target date:** Nov 19

Control Objective 2: Errors preventing SMR submissions are identified and corrections are implemented in a timely manner	
2.1: There is not a systematic process for correcting errors, especially for SMR00s.	**Medium**

Background:

The organisation's electronic clinical system TrakCare automatically performs validation checks on SMR data before it is passed over to ISD. These checks are required by ISD itself, and cover items such as whether the patient's GP's name and postcode have been stated and whether the patient's care has been clinically coded. New validation requirements are communicated via ISD to Intersystems where they are developed and passed to eHealth to be incorporated into TrakCare.

If data does not pass the validation checks then it will not be submitted to ISD. For SMR01s and SMR02s errors will appear in TrakCare and the responsibility of correcting these lies with the Coding Team. For SMR00s, the errors do not automatically appear in TrakCare but can be made available through a downloaded excel spreadsheet from the system.

Observation and Risk:

Errors identified for SMR01s and SMR02s are corrected by the Coding Team and eHealth System Admin on a rostered basis, however, some corrections required sits out with their remit and/or expertise, such as errors in inputting the date treatment is received which is the responsibility of front-line staff. The Clinical Coding Team Leader will highlight corrections required to other areas in the organisation such as Clinical Staff and eHealth System Admin, however, there is no formal process in place to ensure this is happening with errors appearing on next month's reports unaddressed and as per Finding 1.1, no formal process for ensuring actions are addressed.

As the errors identified for SMR00s (outpatient treatments) are mainly due to front line staff i.e. receptionists inputting data incorrectly, these are often left and not corrected. This has resulted in a large number of outstanding SMR00s of 41,202 new and 57,902 predating 2015, which is larger than that of any other NHS Board, with NHS Greater Glasgow and Clyde having the second most outstanding submissions of 24,575. In April, the Access & Governance Committee accepted a paper which will be submitted to the Corporate Management Team for approval, with a proposal to write off the outstanding SMR00 submissions prior to 2015. The write off of SMR submissions will mean these episodes of care will not be recorded.

Our review identified that errors are discussed with relevant service directors at the Access & Governance Committee, however, no improvements have been made and there is not a process for identifying the root cause of errors with no corrective action take to address them. Again, there is no formally assigned responsibility for doing this. There is a risk that errors will recur, there will be delays in submissions to ISD and patient care records not being accounted for in national or local statistics.

Recommendation:

A process for correcting errors, identifying and addressing root causes for all SMR submission failures should be established with responsibility for each assigned with appropriate corrective

action, such as staff training undertaken. Again, as discussed at Finding 1.1 oversight and monitoring of this process should be with someone who can assign actions to the Coding Department & eHealth System Admin, Analytical Services, and front-line/clinical staff.	
Management Response: Additional detail about roles and responsibilities for data correction, and escalation should these not be addressed is required. **Management Action:** This will be developed and tested.	
Responsibility: Tracey Gillies	**Target date:** Nov 19

Control Objective 3: NHS Lothian consider their position compared with other NHS Boards and investigates any outliers	
3.1: NHS Lothian should consider ISD monthly monitoring reports and national data quality assessments to ensure they maintain good practices.	**Low**
Background: ISD publish national audits on specific SMRs and bespoke data quality audits on topics such as 18 Weeks Referral to Treatment waiting times administrative procedures. These reports give NHS Lothian the opportunity to consider national trends and identify potential risk areas affecting Scotland, allowing them to take preventative action. Following the publication of these reports, ISD offer to attend meetings at Health Boards to discuss their findings in full. These ISD reports are received by management including the Chief Executive, Medical Director, Head of Health Records, Director of eHealth and the Assistant Director of Healthcare Planning. **Observation and Risk:** We could not be provided with any evidence to show anything is done with these national reports or that NHS Lothian engage with ISD to discuss the findings of the reports in full. There is a risk that without considering common issues and areas of non-compliance identified through national audits, information on national trends and identification of potential risk areas may not occur. This could lead to poorer data quality and affect the accuracy of the data used nationally and by NHS Lothian to inform decisions.	
Recommendation: NHS Lothian should ensure ISD national audits and bespoke audits are considered for trends in the national position, with this responsibility assigned to the individual or group as per Finding 1.1.	
Management Response: National audits should be considered by Lothian Analytical Services and Digital Services on a regular basis. **Management Action:** A bi-annual report of such audits and their implication will be presented to the Access and Governance Committee	
Responsibility: Tracey Gillies/Simon Watson	**Target date:** Nov 19

Control Objective 4: There is clear ownership and accountability around the actions identified within ISD reports	
4.1: An action plan detailing the planned action for ISD recommendations, responsible owner and due date should be established to log progress against ISD audit recommendations.	**Medium**
Background: ISD undertake audits on the accuracy of the clinical coding process within NHS Lothian. These will look at a specific SMRs at specific acute sites and will highlight any issues with accuracy as well as highlighting any gaps in information being supplied to staff who record data. Currently the recommendations in the reports are picked up by the Clinical Coding Team Leader on an ad-hoc basis, with those recommendations relating to departments outside the Coding Team being communicated to relevant parties such as clinical or front-line staff. Examples of actions included in the reports are shown below: - Requirement to upgrade TrakCare (eHealth responsibility) - Inclusion of comorbidities within discharge letters (Clinical staff responsibility) - Reviewing all relevant documents within patient record prior to coding (Coding Team responsibility) **Observation and Risk:** There is currently no action log in place for the recommendations received within the ISD report, with these being done on an ad-hoc basis by relevant parties. Without an action log there is risk that recommendations are not fully addressed and in a timely manner. In addition, ownership of actions may not be clear, and appropriate follow up of actions may not occur. There is also insufficient oversight by a responsible individual for all actions identified by ISD.	
Recommendation: An action log detailing the planned action against ISD recommendations, responsible owner and due date should be established to log progress against ISD audit recommendations. The action log should include actions being taken against any root causes, as per any route cause analysis performed, discussed within Finding 1.2. A risk assessment of actions from ISD reports should also be performed to identify any areas of key risks to be addressed, with action plans taking this in to account.	
Management Response: Some actions may be beyond the influence of NHS Lothian but each should be considered and logged **Management Action:** The ISD recommendations and associated actions will be presented to the Access and Governance Committee on a bi-annual basis in conjunction with national audits.	
Responsibility: Tracey Gillies/Simon Watson	**Target date:** Nov 19

4. Appendix 1 - Definition of Ratings

Findings and management actions ratings

Finding Ratings	Definition
Critical	A fundamental failure or absence in the design or operating effectiveness of controls, which requires immediate attention
High	A key control failure has been identified which could be either due to a failure in the design or operating effectiveness. There are no compensating controls in place, and management should aim to implement controls within a calendar month of the review.
Medium	A control failure has been identified which could be either due to a failure in the design or operating effectiveness. Other controls in place partially mitigate the risk to the organisation, however management should look to implement controls to fully cover the risk identified.
Low	Minor non-compliance has been identified with the operating effectiveness of a control, however the design of the control is effective

Report ratings and overall assurance provided

Report Ratings	Definition	When Internal Audit will award this level
No assurance	The Board cannot take any assurance from the audit findings. There remains a significant amount of residual risk.	The controls are not adequately designed and / or operating effectively, and immediate management action is required as there remains a significant amount of residual risk (for instance one Critical finding or a number of High findings)
Limited assurance	The Board can take some assurance from the systems of control in place to achieve the control objective, but there remains a significant amount of residual risk which requires action to be taken.	This may be used when: • There are known material weaknesses in key control areas. • It is known that there will have to be changes that are relevant to the control objective (e.g. due to a change in the law) and the impact has not been assessed and planned for. The controls are deficient in some respects and require management action (for instance one 'high' finding and a number of other lower rated findings)
Moderate assurance	The Board can take reasonable assurance that controls upon which the organisation relies to achieve the control objective are in the main suitably designed and effectively applied. There remains a moderate amount of residual risk.	In most respects the "purpose" is being achieved. There are some areas where further action is required, and the residual risk is greater than "insignificant". The controls are largely effective and, in most respects, achieve their purpose with a limited number of findings which require management action (for instance a mix of 'medium' findings and 'low' findings)
Significant assurance	The Board can take reasonable assurance that the system(s) of control achieves or will achieve the control objective. There may be an insignificant amount of residual risk or none at all.	There is little evidence of system failure and the system appears to be robust and sustainable. The controls adequately mitigate the risk, or weaknesses are only minor (for instance a low number of findings which are all rated as 'low' or no findings)

5. Appendix 2 - Staff Involved and documents reviewed

Staff Involved

- Medical Director
- Chief Quality Officer
- Clinical Coding Manager
- Head of Health Records
- Modernisation Manager
- System Administration Manager

Documents Reviewed

- Hospital Records Quarterly Report – NHS Lothian: November 2018
- Hospital Records Quarterly Report – NHS Lothian: February 2019
- SMR01 Project Brief (ISD document)
- 2019 SMR01 Guide to Assessment Process (ISD Document)
- ISD Assessment of SMR02 (Maternity) Data 1th April 2017 – 30th June 2017, Royal Infirmary of Edinburgh, NHS Lothian
- ISD Assessment of SMR02 (Maternity) Data 1st April 2017 – 30th June 2017, St John's Hospital, NHS Lothian
- Review of draft SMR02 reports
- Clinical Coding Team Staff Rota
- SMR01 – 6 week Target data combined
- Listing of SMR00 and SMR01 Errors
- Write off of Historical SMR00 Submissions, 29th April 2019
- ISD information on Standards and Coding for Clinicians
- ISD National Assessment of SMR Data Scotland 2015-2016
- ISD Waiting Times 18 Weeks Referral to Treatment Administrative Processes, 2016-17
- ISD Assessment of SMR01 Data Scotland 2014-15