Cannock Chase Clinical Commissioning Group
East Staffs Clinical Commissioning Group
North Staffs Clinical Commissioning Group
South East Staffordshire and Seisdon Peninsula Clinical Commissioning Group
Stafford & Surrounds Clinical Commissioning Group
Stoke-on-Trent Clinical Commissioning Group

Risk Stratification Policy

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1.0	Policy aligned across all six CCGs	20 June 2019	Tracey Revill

IMPACT ASSESSMENTS – AVAILABLE UPON REQUEST

	Stage	Complete	Comments
Equality Impact Assessment	1	25 July 2019	Approved at Stage 1 no need for further action
Quality Impact Assessment	N/A	N/A	N/A
Privacy Impact Assessment	Advised by IG team that this is not required		

Contents

1.0 Introduction

1.1 Purpose of Policy

This policy provides the organisation with the actions agreed necessary to ensure that Risk Stratification is undertaken in line with current legislation.

The required actions are set out in the document 'CAG 7-04(a)/2013 compliance for CCGs published by NHS England: http://www.england.nhs.uk/ourwork/tsd/ig/risk-stratification/ and are included in summary by this policy and responses set out in Appendix 1.

1.2 Risk Stratification

Risk stratification tools have had a profound impact on the delivery of health services across the developed world. These tools use relationships in historic population data to estimate the use of health care services for each member of a population. Risk stratification tools can be useful both for population planning purposes (known as "risk stratification for commissioning") and for identifying which patients should be offered targeted, preventive support (known as "risk stratification for case finding").

1.3 NHS England's position statement

NHS England encourages CCGs and GP practices to use risk stratification tools as part of their local strategies for supporting patients with long-term conditions and to help prevent avoidable unplanned admissions.

As part of the 2013/14 GP contract, NHS England introduced a new directed enhanced service (DES) that promotes the use of risk stratification tools for identifying and managing patients who are chronically ill or who are at high risk of emergency hospital admission. GP practices choosing to take up this DES may elect to work collectively through their CCG to commission risk stratification tools. In this case, the risk stratification tool would be used to help identify patients at high risk of unplanned hospital admission (risk stratification for case finding).

NHS England has asked CCGs to take the lead in agreeing the details of the risk stratification DES with their participating GP practices so that the arrangements support the CCGs' wider strategy for patients with long-term conditions.

CCGs may themselves commission risk stratification services to support commissioning decisions more generally (risk stratification for commissioning). In this case, knowledge of the risk profile of a population can be useful for:

- commissioning wider preventive services and for promoting quality improvement across member practices.

- In both cases, CCGs need the support and agreement of their member GP practices if risk stratification is to be conducted most effectively.

2.0 Policy Statement

2.1 The organisation will implement the requirements of the Risk Stratification Assurance Statement through actions set out below.

2.1.1 Information Sharing Agreements will be drawn up and agreed between partners involved in the Risk Stratification Process. This will include the CCG, GP practices, other providers and the CSU or/and the Risk Stratification Supplier.

2.1.2 A Privacy Impact Assessment will be completed by the CCGs as per the Information Commissioners Office's (ICO) guidance. This may be undertaken jointly by all partner organisations involved in the risk stratification process.

2.1.3 **Ethical Review**

Risk stratification is comparable to screening because it uses a population's data to identify individuals that are at sufficiently high risk of a Triple Fail event (such as an unplanned hospital admission) to justify offering a preventive intervention (such as the support of a community matron).

However, any screening test has the potential to cause more harm than good; for example, by exposing patients to false positive and false negative results and for these reasons, strict ethical guidelines are required to safeguard against the inappropriate use of risk stratification. In 1968, The World Health Organisation published ten prerequisites that should be met by any ethical screening program known as the Wilson and Jungner criteria; they have recently been adapted for risk stratification purposes:

i) The Triple Fail event should be an important health problem.

ii) There should be an intervention that can mitigate the risk of the Triple Fail event.

iii) There should be resources and systems available for timely risk stratification and preventive interventions.

iv) There should sufficient time for intervention between stratification and the occurrence of the Triple Fail event.

v) There should be a sufficiently accurate predictive risk model for the Triple Fail event.

vi) The predictive risk model and impactibility model should be acceptable to the population.

vii) The natural history of the Triple Fail event (i.e., the practices and processes that typically lead to the event) should be adequately understood by the organisation offering the preventive intervention.

viii) There should be an accepted policy about who should be offered the preventive intervention.

ix) The cost of risk stratification should be "economically balanced" (i.e., it should not be excessive in relation to the cost of the programme as a whole).

x) Risk stratification should be a continuous process, not just a "once and for all" occurrence.

Source: Lewis et al., 2013, based on Wilson & Jungner, 196816

2.1.4 Following completion of the ethical review the CCGs have selected a suitable risk stratification tool based on the following factors:

- the adverse outcome to be predicted;
- the accuracy of the predictions;
- the cost of the model and its software and;
- the availability of the data on which it is run.
- IG considerations

The CCGs will use the Combined Predictive Model, originally developed by the King's Fund, tool for risk stratification.

2.1.5 The GP's will use automated decision-taking and human review with automated decision-taking, the outputs of the tool are used directly to determine which patients should be offered a preventive intervention.

With human review, an appropriate clinician, with responsibility for the care of the individual patient, reviews which patients are to be offered preventive services. The decision is based both on the risk stratification outputs and any other information known to them.

2.1.6 The CCGs will develop preventative interventions that will be offered to high-risk patients. GP's will refer patients to preventative services only with their consent.

The use of risk scores will underpin our approach to designing and managing commissioned services for unscheduled and emergency care over the next five years including a joint approach across health and social care and a targeted approach to admission avoidance and a critical part of what the Cross Economy Transformation Team have set out to achieve.

There are a number of clinical uses of the risk stratification data which will form part of current and future planning on admissions avoidance for the CCGs:

- To identify people with highly complex, multiple morbidity and/or frailty who might benefit from MDT support as part of case management and care planning
- To identify and target specific service needs of patient groups
- To identify suitable patients for the caseload of specialist nursing or medical services such as community geriatricians, community matrons or mental health practitioners, or for end of life advance care planning and/or reduce unnecessary unplanned admissions

2.1.7 The risk stratification process will be carried out in the following manner:

a) Data is received in a "de-identified data for limited access" form (i.e NHS number as the patient identifier) or is pseudonymised on landing; **AND**

b) Processing is within a "closed box" with strict role based access control; **AND**

c) Re-identification is solely for the purpose of direct care and is available only to those with a direct clinical care relationship with the patient.

d) Any publication of data other than in accordance with c. above must be anonymised in line with the ISB Anonymisation for publication standard.

2.1.8 The organisation responsible (CSU/risk stratification supplier) for undertaking the risk stratification processing will ensure that a detailed process is written to outline:

- The secure mechanism for receipt and processing of data within the risk stratification tool
- Data retention periods and data destruction
- Audit trails in place and confidentiality audits enabled
- The minimum data set(s) necessary to be collected and processed
- Training for staff handling data for purpose of risk stratification
- Process for reporting breaches identified

A high level procedure based on the detailed process for risk stratification will be included in the Information Sharing Agreement for risk stratification.

2.1.9 A Communications Plan will be developed to ensure that fair processing is in place for all patients and service users to inform them that their data may be used for risk stratification purposes. The fair processing notice will provide:

- an explanation of risk stratification,
- clarity about who the data controller and data processors are,
- a description of what type of data will be used for risk stratification,
- detail the rights individuals can exercise in relation to this i.e. the right to access their personal data and to object to its use for this purpose and how to exercise this right.

2.1.10 A process will be agreed to ensure patient objections can be handled and processed by the GP and CSU/risk stratification supplier.

3.0 Scope

3.1 Officers Within the Scope of this Document

3.1.1 This policy will apply to all GP practices within the membership of Cannock Chase, East Staffordshire, North Staffordshire, South East Staffordshire and Seisdon Peninsula, Stafford and Surrounds and Stoke-on-Trent Clinical Commissioning Groups (see appendix)

The following members of staff will have access to the identifiable data to support the clinical management of the patient by the practice staff:

- Data Quality Facilitators (Cannock Chase, East Staffordshire, North Staffordshire, South East Staffordshire and Seisdon Peninsula, Stafford and Surrounds and Stoke-on-Trent CCGs)
- Clinical Commissioning Group Facilitators (Cannock Chase, East Staffordshire, North Staffordshire, South East Staffordshire and Seisdon Peninsula, Stafford and Surrounds and Stoke-on-Trent CCGs)
- Locality Development Managers (Cannock Chase, East Staffordshire, North Staffordshire, South East Staffordshire and Seisdon Peninsula, Stafford and Surrounds and Stoke-on-Trent CCGs) DSCRO as the data processor

4.0 Roles & Responsibilities

4.1 GP Practices

4.1.1 The risk stratification tool will be made available to all practices to support them in identifying patients at high risk of

- hospital admission,
- developing a long term condition e.g. diabetes, cardiovascular disease

4.2 Data Services for Commissioners Regional Offices (DSCRO)

4.2.1 The process is ‘black box’ (closed system) and will be done by the DSCRO, they are part of the MLCSU (but this team is ‘seconded’ to the Health and Social Care Information Centre (HSCIC), who are the legal processors of all patient identifiable data.

4.3 DQFs

4.3.1 To support the implementation of the tool.
To support practices to use the tool.
To support practices to manipulate the data generated into a usable manner.

4.4 CCG Facilitators and Locality Development Managers

4.4.1 To support practices to track patients on the budget manager and practice profiler tools and monitors the pathway of care.

5.0 Distribution & Implementation

5.1 Distribution Plan

5.1.1 This document will be made available to all Officers via the SharePoint and Share Net sites.

5.1.2 A global notice will be sent to all Officers notifying them of the release of this document.

5.1.3 A copy of the document will be emailed to each practice and a hard copy of the document will be sent to each member practice of the Cannock Chase, East Staffordshire, North Staffordshire, South East Staffordshire and Seisdon Peninsula, Stafford and Surrounds and Stoke-on-Trent Clinical Commissioning Groups

5.2 Training Plan

5.2.1 A training needs analysis will be undertaken with Officers affected by this document.

5.2.2 Based on the findings of that analysis appropriate training will be provided to Officers as necessary.

5.2.3 Guidance will be provided on the SharePoint and Sharenet sites site.

6.0 Monitoring

6.1 Compliance

6.1.1 Compliance with the policies and procedures laid down in this document will be monitored via the primary care team, together with independent reviews by both Internal and External Audit on a periodic basis.

6.1.2 The Director of Primary Care, in conjunction with the Head of Commissioning with responsibility for Primary Care, is responsible for the monitoring, revision and updating of this document.

6.2 Equality Impact Assessment

6.2.1 This document forms part of Cannock Chase, East Staffordshire, North Staffordshire, South East Staffordshire and Seisdon Peninsula, Stafford and Surrounds and Stoke-on-Trent CCGs' commitment to create a positive culture of respect for all staff and service users. The intention is to identify, remove or minimise discriminatory practice in relation to the protected characteristics (race, disability, gender, sexual orientation, age, religious or other belief, marriage and civil partnership, gender reassignment and pregnancy and maternity), as well as to promote positive practice and value the diversity of all individuals and communities.

6.2.2 As part of its development this document and its impact on equality has been analysed and no detriment identified.

7.0 Associated Documentation

7.1 Reference any NHS England or other documentation that may be linked or related in some way (e.g. forms or detailed operational procedures)

NHS England Risk Stratification Assurance Statement detailing CAG 7-04(a)/2013 compliance for CCGs.

8.0 References

8.1 Reference any external CCG, NHS England or Midlands & Lancashire CSU documentation that may be linked or related in some way (e.g. acts of parliament) NHS England Risk Stratification Assurance Statement.

Appendix 1 Risk Stratification Assurance Statement – Checklist, CCGs response

Information Governance and Risk Stratification: Advice and Options for CCGs and GPs includes a checklist that organisations conducting risk stratification for case finding are advised to follow. The following summarises the approach of the CCGs to meeting these requirements, answers in bold type;

1.0 Develop and implement a risk stratification policy.

2.0 Conduct an ethical review to safeguard against unintended consequences, such as the inadvertent worsening of health care inequalities.

A draft Risk Stratification Policy & Ethical Review process is set out in this document

The algorithm used by the Risk Stratification provider has been developed and extensively tested by the King's Fund; the model targets those most at risk of emergency hospital admission and who are likely to benefit from interventions in community settings, particularly those with Long Term Conditions.

http://www.kingsfund.org.uk/sites/files/kf/field/field_document/PARR-combined-predictive-model- final-report-dec06.pdf

3.0 Develop one or more preventive interventions that will be offered to high-risk patients.

The use of risk scores will underpin our approach to designing and managing commissioned services for unscheduled and emergency care over the next five years including a joint approach across health and social care and a targeted approach to admission avoidance and a critical part of what the Cross Economy Transformation Team have set out to achieve.

4.0 Select a **suitable predictive model**.

The algorithm used is the Combined Predictive Model (CPM) developed by the King's Fund as a successor to the PARR and PARR+ models. The algorithm was developed into a tool by the former Blackpool PCT and has proved to be of great benefit to Blackpool clinicians.

The model uses secondary care activity data and GP system data relating to long-term conditions and disease registers to predict the likelihood of emergency hospital admission within the next 12 months; patients are ranked and grouped into categories based on anticipated intervention level (case management, disease management, supported self-care, prevention & wellness promotion).

5.0 Where the data are to be processed in identifiable form (i.e., confidential patient information) ensure there is a legal basis to obtain and process the data for these purposes (the only legal basis to process identifiable data "in the clear" for risk stratification purposes is consent). The legal basis is currently provided by s251 approval, but longer term arrangements to utilise pseudonymised data and re-identify only by those with a legitimate relationship with and individual should be developed or alternative legal basis sought such as consent.

Data processing is undertaken by the Risk Stratification provider, NHS Midlands & Lancashire CSU using pseudonymised data only; decryption to clear NHS number is only available to clinicians.

6.0 Agree a defined data set to be used for risk stratification that is adequate, relevant, but not excessive – including the extent of historical data needed to run the model (e.g. two or three years‟ worth of data).

When fully implemented for a CCG the CPM utilises the following datasets:

- Long-term conditions; patients diagnosed with a defined long-term condition at any time
- Events – all clinical data entries expect those containing 'sensitive' codes [1] (3 years data)
- Secondary care attendances & admissions (3 years data)
- Out of hours service contacts (3 years data)
- Community contacts (3 years data)
- Community Matron caseloads (snapshot)
- Practice registered population (snapshot)

The minimum required for a basic implementation of the model (with less predictive power) is secondary care activity data and practice register data.

Details of the data set to be used are included in the Information Sharing Agreement for Risk Stratification and the CSU Risk Stratification Processing Document.

7.0 For predictive models that use GP data, consider how the GP data will be obtained (e.g., using the GP Extraction Service [GPES] or directly from the GP system supplier).

GP data is to be extracted by a combination of MIQUEST queries, EMIS Searches and Reports and EMIS-IQ. Data extracts are undertaken by the Primary Care Data Quality team and permission from the practice is always sought prior to any extract being taken.

GP data extracts containing identifiable data are sent directly to the DSCRO[2] secure data warehouse where they are pseudonymised before being released to the CSU for processing in the Risk Stratification tool.

8.0 Determine whether to use automated decision-taking or human review. With automated decision-taking, the outputs of the tool are used directly to determine which patients should be offered a preventive intervention. With human review, an appropriate clinician, with responsibility for the care of the individual patient, reviews which patients are to be offered preventive services. Their decision is based both on the risk stratification outputs and any other information known to them.

The GP's will use automated decision-taking and human review. With automated decision-taking, the outputs of the tool are used directly to determine which patients should be offered a preventive intervention. With human review, an appropriate clinician, with responsibility for the care of the individual patient, reviews which patients are to be offered preventive services.

9.0 Ensure that any data service providers being used for risk stratification have appropriate information governance controls in place. These controls include but are not limited to:

a) Checks to verify the accuracy of the data and to ensure they are up to date.

b) Processes to ensure that the data are not retained longer than necessary by the organisation conducting the risk stratification analysis (i.e. there should be a rolling programme of anonymisation or destruction as the data exceed the defined time period required for the risk stratification tool).

[1] Details of exclusions are contained in the CSU 'Risk Stratification Processing Document'

[2] Data Service for Commissioners Regional Office; part of the Health and Social Care Information Centre and legally allowed to receive & process identifiable patient data

c) Checks that the data are not processed outside the European Economic Area unless there are equivalent legal, technical, and organisational measures in place to protect the data appropriately.

Full details of the CSU's processing for Risk Stratification, including details of retention, access controls, etc. are contained in the CSU 'Risk Stratification Processing Document'. Additional details and controls are contained in the Information Sharing Agreement for Risk Stratification.

Both the CSU and the DSCRO have achieved their respective IG toolkit requirements.

10.0 Establish appropriate contractual arrangements with any data service providers that:

a) Ensure there are appropriate organisational and technical measures in place to protect the data;

b) Prevent the unauthorised re-identification, onward disclosure, or further unauthorised or unlawful use of the data; and

c) Include mechanisms to manage the contract and audit how the data are being used.

d) Include a local process for managing patient objections. Patients may object to the disclosure or use of their personal confidential information, and/or they may object to automated decision-taking.

Each participating GP practice will have an agreement with the CSU Primary Care Data Quality Team to allow access to their systems for Risk Stratification extracts, but only with prior approval from a practice representative.

Each participating practice will also be a co-signatory to the Data Sharing Agreement between practices, CCG and CSU as Data Service Provider.

Full details of the CSU processing, security controls, retention policy, technical measures and management of patient objections are contained in the CSU 'Risk Stratification Processing Document'.

Additional controls are included as part of the Information Sharing Agreement for Risk Stratification.

11.0 Develop a communications plan, including communication materials for patients (these materials may be incorporated into wider fair processing information).

12.0 Inform patients that their identifiable or weakly pseudonymised data may be used for risk stratification purposes.

GP Practices already provide information for patients regarding use of their data. Work will be undertaken in conjunction with the LMC regarding advice to Practices on communication materials and content.

- posters and leaflets available within the surgery;
- actively providing information at the time of registration and other points of written communication;
- dissemination via local patient groups; and
- Inclusion of the information on the practice website.

Information for patients is provided at the point of care (primary & secondary care) Under these proposals risk stratification will be undertaken using pseudonymised data.

13.0 Ensure that only those clinicians who are directly involved in a patients care can see a patients identifiable risk score.

All data processing within the CSU is conducted on pseudonymised data, no CSU or CCG staff has access to clear patient data except for those involved in the development of the tool and reports (and all these are seconded to HSCIC to allow them legal access to clear data).

The reports are delivered to end users through the CSU's Aristotle BI portal; all users are required to register and have their request approved by a nominated practice authoriser (usually a line manager for CSU/CCG staff and a GP or practice manager for practice or community staff). At the point of registration a practice or community users can also request access to clear data on the basis of having a clinical relationship with the patients, and the practice authoriser must explicitly approve this before access is given.

All de-encryption of pseudonymised data is done automatically within the Risk Stratification reports and no users have access to the encryption keys.

14.0 Where a tool provides other clinical information (such as information derived from secondary care data), the GP must ensure that these types of data are relevant and that they have the consent of the patient to view this additional information.

The Combined Predictive Model reports allow for the inclusion of additional information about a patient's activity history with secondary care or community providers, plus details of Community Matron caseloads where applicable. Such data is only presented for the patients that are the direct clinical responsibility of the GP practice concerned.

15.0 Refer patients to preventive services only with their consent.

The use of risk scores will underpin our approach to designing and managing commissioned services for unscheduled and emergency care over the next five years including a joint approach across health and social care and a targeted approach to admission avoidance and a critical part of what the Cross Economy Transformation Team have set out to achieve.

16.0 Conduct Risk Stratification using one of the options outlined in Annex 1 (Page 17) of the original 'Information Governance and Risk Stratification: Advice and Options for CCGs and GPs' document released by NHS England in 2013

The CSU as Risk Stratification provider is using Option B (pseudonymisation at landing).

17.0 Using pseudonymous data, evaluate and refine the risk stratification model used and the preventive interventions offered according to its predictions

The CPM algorithm was developed and extensively tested by the King's Fund. Whilst being implemented in the former Blackpool PCT the project team included clinical input from GPs, Matrons and other clinical staff, as well as Public Health and statistical specialists.

The former Northwest SHA commissioned a piece of work to re-validate the CPM and improve its predictive accuracy.

A project has just been commissioned by the North West DSCRO to compare the predictive accuracy of various Risk Stratification algorithms & tools, including the CPM model used locally.

Appendix 2 Definitions

Unless a contrary intention is evident or the context requires otherwise, words or expressions contained in this document shall have the same meaning as set out in the National Health Service Act 2006 and the Health & Social Care Act 2012 or in any secondary legislation made under the National Health Service Act 2006 and the Health & Social Care Act 2012 and the following defined terms shall have the specific meanings given to them below:

Clinical Commissioning Group/CCG	means a body established in accordance with section 1I of the NHS Act 2006
Employee	means a person paid via the payroll of Staffordshire & Lancashire CSU.
HSCA 2012	means Health & Social Care Act 2012
NHS Act 2006	means National Health Service Act 2006 (as amended).