British Society for Rheumatology

National Early Inflammatory Arthritis Audit (NEIAA)

Outlier Policy

Overview

This policy is specific to the National Early Inflammatory Arthritis Audit (NEIAA) and describes how the audit employs the national outlier guidance for HQIP-commissioned audits operating in England and Wales. It is reviewed annually, for each round of outlier analysis.

The effective operation of this policy enables the audit to identify and engage with outlier healthcare providers, supporting both local and national quality improvement.

Outlier analysis for the audit is undertaken by the audit's methodology partners, the academic rheumatology department at King's College London, which has the appropriate statistical expertise and experience, and medical knowledge of the clinical care being evaluated.

Key Information

Which specific patient cohort does this outlier policy apply to?

The outlier policy applies to patients recruited to the NEIAA with a confirmed diagnosis of early inflammatory arthritis from 1 April 2024.

Where will the results of the outlier analysis be published?

The results of the outlier analysis, including a list of outlier and non-participant healthcare providers, will be published alongside the audit's annual report on the British Society for Rheumatology website.

Which metrics are subject to outlier analysis?

Outlier analysis is undertaken on the proportion of adults with early inflammatory arthritis starting conventional disease-modifying anti-rheumatic drug (cDMARD) therapy within 6 weeks of referral.

This metric relates to 'Quality Statement 2: Treatment' (*Adults with active rheumatoid arthritis start conventional disease-modifying anti-rheumatic drug [cDMARD]... within 6 weeks of referral, with monthly monitoring until their treatment target is met)* in the National Institute for Health and Care Excellence (NICE) 'Rheumatoid arthritis in over 16s' Quality Standard [QS33].

Healthcare providers registered on the NEIAA data-entry platform have access year-round to real-time data illustrating their performance against this metric.

What is the rationale for the chosen metric?

There is a clear positive relationship between the early initiation of treatment and improved patient outcomes.

Previously, the audit used a different metric to conduct outlier analysis (the proportion of adults with suspected early inflammatory arthritis assessed in a rheumatology service within 3 weeks of referral). However, because the audit has demonstrated that there was a clear correlation between starting cDMARDs early and achieving remission, it was determined that the new metric was a more valid measure of quality of care for patients with a confirmed diagnosis of early inflammatory arthritis.

What measures are in place to ensure the quality and accuracy of data?

Recruitment rates will be presented at trust, regional and national level. Outliers on QS2 are at least 3 standard deviations below the mean adjusted for the size of their own dataset

Statistical uncertainty around recruitment rates will be quantified with confidence intervals using a negative binomial distribution to account for non-normality and over dispersion of data. Generalised linear mixed models will be used to estimate performance for each Trust/health board. Since performance at the individual level is binary (achieved versus not achieved) logistic models will be used. Trust/health board level estimates will be generated by the inclusion of trust as a random effect.

Data accuracy will be ensured by the online data collection tool, which will not allow spurious or unfeasible values to be entered. In addition, accuracy at site level will be regularly monitored, by manually assessing if the data entered is consistent and realistic when compared with local and national trends. All Trust/Health board who have recruited < 30 patients will be flagged as a low-recruiter outlier. It is not possible to reliably calculate performance against the QS2 criteria for Trusts/Health Boards with < 30 patients entered.

How is case-mix adjustment utilised?

We will use the following for case mix adjustment:

- Age
- Gender
- Ethnicity
- Socioeconomic status

Adjusted mean performance for the population included in the audit will be the reference against which all trusts/health boards are compared.

How are potential outliers identified?

Outliers are identified where performance falls below the national average performance using funnel plots. Outliers are defined as those at alarm level, defined as 3 standard deviations below the mean. For trusts at alarm level, the escalation process is shown in table 1.

Trusts/Health Boards that recruit fewer than 30 patients to the audit will be listed in an appendix to the annual report and will be treated as outliers in-line with the outlier process.

Table 2 outlines the actions required for outliers at the alert level (greater than two standard deviations but within three standard deviations of expected performance).

What are the timescales for the outlier process?

Table 1 below sets out the actions required for outliers at the alarm level and for non-participation in the audit (defined as entering fewer than 30 patients).

Table 1 – Actions required for outliers at alarm level (>3 standard deviations from expected performance) and for non-participation.

- Alarm level outliers are included from step 1.
- Non-participation outliers are included from step 5.

Step	England	Wales	Owner	Within working days
1	Healthcare providers with a possible performance indicator at alarm level require scrutiny of the data handling and analyses performed to determine whether: *'Alarm' status not confirmed:* • Data and results revised in national clinical audit (NCA) records. • Details formally recorded, and process closed. *'Alarm' status confirmed:* • Potential 'alarm' status: > proceed to step 2		British Society for Rheumatology	10
2	Healthcare provider lead clinician informed about potential 'alarm' status and asked to identify any data errors or justifiable explanation(s). All relevant data and analyses should be made available to the lead clinician. No new patient data can be entered after the data deadline, but inaccurate data can be corrected.		NEIAA Clinical Lead **(Action: send letter 1)**	5
3	Healthcare provider lead clinician to provide written response to NEIAA team.		Healthcare provider lead clinician	25
4	Review of healthcare provider lead clinician's response to determine: *'Alarm' status not confirmed:*		NEIAA Clinical Lead	20

<table>
<tr><td></td><td colspan="2">It is confirmed that the data originally supplied by the healthcare provider contained inaccuracies. Re-analysis of accurate data no longer indicates ‘alarm’ status.
Data and results should be revised in NEIAA records including details of the healthcare provider’s response. ‘Alarm’ status confirmed: Although it is confirmed that the originally supplied data were inaccurate, analysis still indicates ‘alarm’ status, or
It is confirmed that the originally supplied data were accurate, thus confirming the initial designation of ‘alarm’ status. > proceed to step 5 </td><td></td><td></td></tr>
<tr><td rowspan="2">5</td><td colspan="2">Healthcare provider lead clinician contacted by email or telephone, prior to sending written notification of confirmed ‘alarm’ or non-participation (<30 recruited) outlier status to healthcare provider CEO and copied to healthcare provider lead clinician and medical director.

For alarm level outliers, all relevant data and statistical analyses, including previous response from the healthcare provider lead clinician are made available to healthcare provider medical director and CEO.</td><td rowspan="2">British Society for Rheumatology / NEIAA Clinical Lead

(Actions: send email to healthcare provider, followed by letter 2)</td><td rowspan="2">5</td></tr>
<tr><td>For England, the outlier confirmation letter includes the details in step 7 below, and a request that the Trust engage with their Care Quality Commission (CQC) local team.

The NEIAA outlier policy is provided to healthcare provider colleagues.

The CQC, NHS England, and HQIP are notified of healthcare providers at confirmed ‘alarm’ status.</td><td>For Welsh providers, the Welsh Government and HQIP are notified of healthcare providers at confirmed ‘alarm’ status.

The Welsh Rheumatology Clinical Implementation Network will also be notified at this stage.</td></tr>
</table>

	The NEIAA outlier policy is provided to each. All three organisations will confirm receipt of this notification. The CQC provide NHS England with a quarterly report of all alarm and alert level outliers that have been notified to CQC.			
6	The British Society for Rheumatology will proceed to public disclosure of comparative information that identifies healthcare providers as Alarm level outliers or non-participation outliers. Healthcare providers who have completed an investigation into their outlier status will be recognised as having begun appropriate remedial action in a footnote to the annual report or via a separate publication by the British Society for Rheumatology. Publication will not be delayed whilst waiting for such investigation to be completed. This can be added, online, when and if it subsequently becomes available. Conversely, if there has been no response from the healthcare provider concerning their alarm outlier status, that will be documented on the British Society for Rheumatology's website, alongside the annual report.	The healthcare provider CEO will acknowledge receipt of the written notification. They will confirm that a local investigation will be undertaken with independent assurance of the investigation's validity for 'alarm' level outliers, copying in the Welsh Government. Healthcare provider CEO informed that the British Society for Rheumatology will publish information of comparative performance which will identify healthcare providers.	England: British Society for Rheumatology Wales: Healthcare provider CEO	England: NEIAA annual report publication date Wales: 10

7	The CQC advise that during their routine local engagement with the providers, their inspectors will: • Encourage Trusts to identify any learning from their performance and provide the CQC with assurance that the Trust has used the learning to drive quality improvement. • Ask the Trust how they are monitoring or plan to monitor their performance. • Monitor progress against any action plan if one is provided by the trust.	The Welsh Government monitors the actions of organisations responding to outliers and takes further action as and when required. The Healthcare Inspectorate Wales (HIW) does not act as regulator and cannot take regulatory action in relation to NHS providers. However, HIW can request information on the actions undertaken by organisations to ensure safe services are being delivered. The Welsh Government can share information with HIW where appropriate and advise on the robustness of plans in place to improve audit results and outcomes.	England: CQC Wales: Healthcare Inspectorate Wales (HIW)	Determined by the CQC and HIW
	If an investigation has been conducted in the Trust into an alarm outlier status, it is required that the CQC and the British Society for Rheumatology would be provided with the outcome and actions proposed.	N/A	Trust Medical Director	
	This would be published by the British Society for Rheumatology alongside the annual report. Further if there were no response, the British Society for Rheumatology would publish this absence of a response. The CQC are not prescriptive concerning any such investigations but there needs to be a degree of independence so that the validity of the findings is acceptable.	N/A	British Society for Rheumatology	

8	N/A	If no acknowledgement received, a reminder letter is sent to the healthcare provider CEO, copied to the Welsh Government and HQIP. If not received within 15 working days, the Welsh Government is notified of non-compliance in consultation with HQIP.	British Society for Rheumatology	Wales: 15
9	N/A	Public disclosure of comparative information that identifies healthcare providers.	British Society for Rheumatology	NEIAA annual report publication date

Table 2 – Actions required for outliers at alert level.

Step	England	Wales	Owner
1	Clinical Leads at healthcare providers identified as alert level outliers are informed of their outlier status. Simultaneously, they are informed that the CQC, NHS England and HQIP do not mandate a formal notification and escalation process for alert level outliers beyond notification of the relevant clinical team		British Society for Rheumatology
2	No further formal action is required by NHS Trusts in England. Data contained in the outlier notification should be used as part of internal quality monitoring processes.	The Welsh Government is informed of healthcare providers identified as alert level outliers.	England = Healthcare provider lead clinician Wales = British Society for Rheumatology, Welsh Government, and Health Boards

British Society for Rheumatology

Letter 1 – Outlier notification letter to Clinical Lead

Dear XXX

National Early Inflammatory Arthritis Audit (NEIAA) Outlier Notification

We are writing to you as the audit lead for XXX. Thank you for contributing to this important national clinical audit. Having completed our analysis of data for year six of the NEIAA we have identified you as a probable outlier.

One of the key aims of the audit is to encourage collaborative working between clinicians, employers and commissioners to improve the quality of care provided to patients. We are keen to support our colleagues in any way that we can, and you can find our guidance for outliers here. We also have several case studies outlining how services have improved their performance on the audit platform here.

We measure performance against quality statement two of NICE quality standard 33 (2020 version) which recommends that "adults with active rheumatoid arthritis start conventional disease-modifying anti-rheumatic drug (cDMARD)... within 6 weeks of referral." We also report as an outlier all Trusts/Health Boards recruiting <30 patients.

Your results:

- Number of patients included in the analysis:
- QS2 performance (proportion of patients meeting QS2):
- Outlier threshold for your Trust/Health Board:

We recognise that there may be multiple reasons behind these figures which do not necessarily reflect the performance of an otherwise good department and are keen to work with you to understand specific local issues and how they can be addressed. Ongoing pressures on the health system have had a wide-ranging impact on rheumatology services and these have potentially exacerbated established problems such as clinic capacity, workforce shortages and/or the configuration of services. Feedback from other units confirms that performance against this quality statement can be improved in several ways including alterations to clinic templates, more effective triage and alterations in care pathways.

We need you to confirm within **25 working days** whether you have identified any data inaccuracies, so we can adjust the data accordingly. This process and its timescales are set by HQIP in their guidance on the management of outliers and are set out in our outlier policy; BSR is required to follow this as part of our current contract.

We are also required to work closely with the Care Quality Commission (CQC) and the Health Inspectorate Wales (HIW). The CEO and Medical Director of outlier Trusts/Health Boards will be notified once outlier status is confirmed. Following on from this, outliers will be reported in the NEIAA annual report due for publication later this year.

We know that this is a difficult message to receive and would like to reiterate our commitment to support you in any way that we can. I would be happy to discuss these matters further with you and the team if you felt this would be helpful.

Please do not hesitate to contact us at audit@rheumatology.org.uk for further information.

Yours sincerely,

XXX

NEIAA Clinical Lead

British Society for Rheumatology

Letter 2 – Outlier Confirmation letter to CEO (CC: Medical Director; Clinical Lead)

Dear XXX

National Early Inflammatory Arthritis Audit (NEIAA) Outlier Confirmation

We are writing to you as the CEO for XXX to inform you that we have recently completed our analysis of data for year six of the NEIAA audit and established that your Trust/Health Board will be reported as an outlier in our year six annual report, due for publication later this year.

We measure performance against quality statement two of NICE quality standard 33 (2020 version) which recommends that "adults with active rheumatoid arthritis start conventional disease-modifying anti-rheumatic drug (cDMARD)... within 6 weeks of referral." We also report as an outlier all Trusts/Health Boards recruiting <30 patients. Our analysis shows that your Trust/Health Board is an outlier. The statistical analysis behind this finding is available on request. We alerted your department to this in previous correspondence (please see email attachments).

We are aware that ongoing pressures on the health system continue to have a wide-ranging impact on rheumatology services and these have potentially exacerbated established problems such as clinic capacity, workforce shortages and/or configuration of services. Feedback from other units confirms that performance against this quality statement can be improved in several ways, including via additional investment and alterations in care pathways. We are therefore calling upon you to review the resources available to your rheumatology departments and to ensure that they are adequately supported.

We would recommend that you identify lessons from your performance and provide assurance that you have used this learning to drive quality improvement. We advise that you monitor your performance against an appropriate action plan and engage with your regulator to demonstrate improvement.

We would be grateful if you could acknowledge receipt of this letter within the next 10 days.

Please note that we are also required to work closely with the Care Quality Commission (CQC) and Health Inspectorate Wales (HIW), who will be informed of your outlier status.

We hope that you will support your rheumatology teams with this important initiative and are very happy to provide any further information. I would be happy to discuss these matters further with you and the team if you felt this would be helpful.

Many thanks in anticipation.

Yours sincerely,

XXX

British Society for Rheumatology

NEIAA Clinical Lead