Q&A for Invitation to Tender: Evaluating the impact of the C2-Ai tool for supporting the management of elective care waiting lists

Updated 8th December 2021.

1. **How were the list of questions for the evaluation, and the proposed quantitative and qualitative measures (both detailed in the ITT) derived? Was a logic model used? Which stakeholders provided input? If a logic model or other methodology was used, would we have access to these materials when the project initiates?**

A logic model was generated through an iterative process, including a workshop with key stakeholders, facilitated by the EASHN, with subsequent discussion with the ESNEFT delivery team clinical and non-clinical leads), C2-Ai and NHS (the logic model is available as part of the response to this QA). The questions and different measures identified were discussed, scoped, and agreed with stakeholders in this context as the starting point for this evaluation project.

2. **The ITT states that the 'initial report finding will be presented within 3 months of the project launch focusing on outcomes related to patient's prioritisation and deterioration'. However, the approximate timetable states that the inception report (which comprises an evaluation framework) will be delivered 3 months after the January project launch (31/03/2022) and the interim report (which comprises a progress update and preliminary findings) will be delivered 8 months after project launch (31/08/2022). Could you please clarify the date at which the initial report finding focusing on outcomes related to patient's prioritisation and deterioration should be delivered?**

The initial report (end March) at three months will provide the opportunity to share early-stage findings and insights based on work completed to that date (with the focus on the evaluation framework and insight on outcomes if available). The interim report (End of August) will provide a further update on data analysis and build on the work completed to that date.

3. **At roughly what date will data collection from the ESNEFT pilot initiate? Will this allow time to use the completed evaluation framework (delivered 31/03/2022) to inform discussions with ESNEFT/C2-Ai on data collection procedures, access to systems, and setting up of any agreed control or comparator group prior to the initiation of data collection?**

Onboarding has commenced for the pilot project with inception expected to be completed in January. Baseline data is already being collected re impact on anticipated outcomes. Data needed for the evaluation will be collected following the development of the evaluation framework. The comparator is likely to be the existing approach to prioritisation at Ipswich hospital and there will be opportunity to ensure the data needed is collected from Ipswich as part of the evaluation framework development (this will be confirmed during inception discussion with ESNEFT).

4. **What is the anticipated use of the evaluation, other than to provide information to the implementation team bilaterally to the pilot roll-out? Is there a specific audience in mind for the final report?**

This independent evaluation study will contribute to addressing the wider need in the context of providing rigorous analysis of outcomes and impact in supporting the management of elective care waiting lists. NHSE and other stakeholders will have an interest in considering the findings of this work and the project will provide the basis for further development and deployment.

5. **Are there any parties that we should collaborate with other than those mentioned in the ITT (C2-Ai/ESNEFT)?**

It will be useful to liaise with the Northwest (St Helens and Knowsley Teaching Hospitals NHS) as part of the inception work to confirm data available and insights generated from their own use of the C2-Ai platform. The inception report should also include a horizon scan of existing or planned evaluation studies that are directly relevant to the C2-Ai evaluation in relation to waiting list management.

6. **Are you aware of, or do you have access to any prior evaluations that have been performed on C2-Ai in the UK? (For example, on the use of C2-Ai in the Northwest)? If so, would we have access to these materials when the project initiates?**

We are not aware of any prior independent evaluations conducted of the C2-Ai PTL prioritisation tool. Detailed information and insights have been generated by the C2-Ai company and St Helens and Knowsley Teaching Hospitals NHS Trust in the context of their own pilot project and this will be made available to the evaluation team. We are also aware that other NHS Trusts will be piloting the platform. The tools that feed into C2-Ai have been evaluated and these will be shared with the appointed team.

7. **It is stated in the checklist for bidders that bids should exclude the cost of making presentation to ESNEFT and Eastern AHSN on the findings. Is this because no such presentation is required? If not, could you please provide some more detail on the form that this presentation would take?**

A presentation for stakeholders will be required at the end of the project based on the final report. This will be in the form of a Power Point presentation and related short executive summary which can be used by EAHSN and ESNEFT to promote the findings of the study.

8. **Does the innovation (C2-AI) process and manage all patients waiting to be seen by a secondary or tertiary care professional? OR does it only focus on patients awaiting surgery?**

For the purposes of this pilot project, the focus is on patients awaiting surgery.

9. **What is the intended scale of use and scope of specialities who will use the innovation i.e., which clinical specialities and admin/managerial staff?**

The C2-Ai pilot project will be implemented in the context of three clinical pathways: General Surgery, Orthopaedic and Gynaecological. This will be confirmed during the inception phase of the evaluation. The pilot project will involve all clinical and non-clinical staff involved in the current system of PTL management in the selected pathways and with oversight by the CRG and the Executive Management Committee

10. **How is prioritisation done currently in Ipswich and Colchester? Do they follow the same process? Does prioritisation involve a multi-disciplinary team meeting? How many/Who involved? How frequently are these held? What duration?**

Prioritisation at both sites is undertaken in accordance with national NHS standards and processes. Further information can be found here.

11. **Please explain the rationale for a 2-arm study design rather than a “before and after” design to assess the impact of the intervention? Has ethics approval been granted for this 2-arm study design (i.e., the ethics of NOT implementing the innovation in Ipswich when it could reduce mortality there)?**

The decision to use the two sites for this pilot has been made by ESNEFT to provide an appropriate control to evaluate the outputs and impact of the C2-Ai platform. The data generated by the platform will not replace the existing procedures for managing elective care waiting lists with clinical decision making providing the basis for all final decisions as to patient prioritisation. The final decision as to the identification of the control group is still under consideration by ESNEFT and further clarification will be provided to the selected team during inception.

The reason a before and after design is not appropriate is because waiting times (and associated deterioration) are at an all-time high due to Covid-19. 20/21 data would not be appropriate given that all elective procedures were paused during the height of the pandemic. Since procedures have re-commenced, waiting lists have been growing rapidly. Also, in using a pre- and post- design, the counter-factual would not be available for patients that were prioritised highly be existing methods but would not have been prioritised so highly by C2Ai.

12. **Do either Colchester or Ipswich provide specific surgical specialities (or facilities) which would provoke a referral to one in preference to the other?**

Yes. Plastic surgery and Pain.

13. **What geographic catchment areas do Ipswich and Colchester serve? Is there overlap? Will data on patient demographics for both sites be made available?**

East Suffolk and North Essex NHS Foundation Trust (ESNEFT) provides hospital and community health care services for Colchester, Ipswich and local areas. Formed on 1 July 2018, ESNEFT is the largest NHS organisation in the region. It provides services from Colchester and Ipswich hospitals. Further clarification on patient demographics will be provided.

14. **Please explain the rationale for explicitly requesting comorbidity burden as a proxy for measuring social inequalities of health.**

Co-morbidities, in combination with geographical data and the Indices of Multiple Deprivation, has been identified as one of several possible metrics to assess the impact of C2Ai on those who may be underserved by health services – and it has previously been used by C2Ai for this purpose. However, it is expected that the proposals submitted by those bidding for this work will present their own approach to assessing the potential impact of C2Ai on health inequalities, including scoping alternative metrics.

15. **What index is currently used in Ipswich and Colchester to measure comorbidity? Do they use the same index?**

To be provided.

16. **What indices are currently used in Ipswich and Colchester to measure patient deterioration following discharge? Do they use the same indices at both sites?**

To be provided

17. **How are patient outcomes of those receiving delayed surgery (particularly P2-P4) currently recorded (both prior to receiving surgery and post-surgery)?**

To be provided

18. **Will the following data-points be available?**

    - **Waiting list sizes and average waiting times for each site per age-group / condition / P1-P6 level?**
    - **Mortality data for the patient population on the list for each site per age-group / condition / P1-P6 level?**

- **Post-procedure complications for each site per age-group / condition / P1-P6 level?**
- **ER admission data for each site per age-group / condition / P1-P6 level?**

To be provided.

19. How do Colchester and Ipswich currently collect data on socio-economic grading of their patients? Will the above data be split by the socio- economic status (SES) of the patient population within each of the sites? How crucial is assessment on social inequalities of health to this study?

To be provided.

20. Please explain why the evaluation of the data from the introduction of the intervention would require ethical approval.

This depends on the approach taken by the evaluation team. In assessing patient quality of life and e.g., level of pain while waiting for a procedure, one approach would be to conduct patient surveys at baseline and subsequent follow-up time points. While ethical approval would not be needed to do this with the intervention group in Colchester (given that this would be classed as service evaluation), it may be needed to collect this data from patients at the control site in Ipswich. However, if only de-identified routine data is used for this purpose ethical approval will likely not be needed.

21. What is the current impact of duplicates on clinical or process outcomes? Is it additional time required to process the list by the clinical team? Additional waiting times? Duplicate appointments taking place?

The main impact appears to be time taken to manually scrutinise the list and identify duplicates. This will can be confirmed during the evaluation.

22. How do Colchester and Ipswich currently measure duplicates? Will data on the number of duplicates on the patient list be available?

Duplication data should be available and will be confirmed during inception.

23. Has the C2-Ai Ai platform been given a technology readiness rating?

The C2-Ai platform has not been appraised by the TR rating, but it is fully operational and is being deployed as a working PTL tool. The platform uses POSSUM and COMPASS data analysis platforms which are in in wide use across the NHS.