Submission form to CSC Team

Project Title:

|  |  |
| --- | --- |
| Collaborators Name |  |
| Email Address |  |
| Institution |  |
| Department |  |

Contact Details:

1. Please describe the current clinical/patient pathways that are relevant to the project you are submitting as they stand to date and what clinical care guidelines are in place to ensure standards of care?

*e.g. Children with persistent rhinitis and respiratory symptoms who have a negative CFTR genotypes raise the suspicion of PCD.*

*Diagnosis of this genetic disease can be lengthy, complex and uncomfortable and can often require several assessment’s to be completed before a confirmation the diagnosis of PCD. Clinical care guidelines by the Nation PCD Service advice 4 diagnostic tests, included Nasal Nitric Oxide levels, TEM, CBF and CBF assessments.*

1. Briefly describe the problem you are trying to address in terms of frequency, occurrence, prevalence, cost *(if known),* population size etc.

* *Own, in Trust patient population- prevalence*
* *Nationally.*
* *Outcome occurrence of treatments.*
* *QOL, added life years of treatment*

1. Please describe any technology or publications you have to support the feasibility of the suggested project.
2. Please describe how the proposed AI Solution will change the current workflow

* *In an ideal world, how will the development of the technology will change practice?*
* *What are the ideal user requirements?*
  + *The notification turnaround time*
  + *How would you like the results be displayed*
* *Describe the Aims of the project*
* *What are the objectives of utilising a new technology?*
* *Who would be using the technology (e.g. the geneticist and the specialised PCD nursing staff)*

1. Does a Dataset for your project already exist on the TOHETI database? (If yes please move to questions 7)

*Yes/ No*

*Yes: Location*

*Access permission requests- who should this be made out to?*

1. What data sets and/or systems would be relevant to develop your proposed AI solution?

|  |  |
| --- | --- |
| *Data Required* | |
| *Source of Data* | *e.g. Kings, GSTT, Evelina Centre* |
| *Time Period* | *e.g., From 2010 onwards,* |
| *Health Care Intervention (Experiment)* | *e.g., GP Appointment, MRI, X-Ray,* |
| *Pathology* | *e.g. Bleeds, Clots, Tumours,* |
| *Anatomy of interest* | *e.g., Hand, Foot, Kidney* |
| *Label on data* | *e.g., Presence of perforation, Absence of fracture* |

1. Who will this solution serve?

|  |  |
| --- | --- |
| Stakeholder | Potential impact |
| *e.g. Geneticist* | *Increased throughput however streamlined workflow* |
| *PCD Nurse specialists* | *Increased demand for nasal swabs and counselling of parents and families in the paediatric cohort* |
|  |  |

1. What, *if any*, Public and Patient Involvement (PPI) have you had to date?
2. What are the minimal results you would want to see with the deployment of your solution, to show that it has been effective in changing the delivery of care?

Examples

* *Aiming to reduce the number of diagnostic tests to only 2 from the original 4*
* *To detect over 95% of Carpel bone fracture in children under 10*

*Please then explain the positive impact of this outcome*

* *Reduce hospital visits, costs of multiple tests, earlier access to treatment and prevention of secondary complications etc.*

1. How do you envisage the roll out into practice?

* *E.g. all staff training to use the technology solution or a subset of a staffing group?*
* *Trial basis with evaluation and further developments*

1. Have you considered what health economic analysis would be appropriate to complete, and if so, what would you be interested in measuring in the short and long term?

* *Reduced length of stay*
* *Reduced number of Antibiotic courses over 1 year*
* *Reduced length of outpatient appointment time*
* *Reduced number of additional tests to complete and thus the cost saving of not having to complete them.*

1. Please complete this PICO table to demonstrate measuring the effectiveness of the technology solution proposed

|  |  |  |  |
| --- | --- | --- | --- |
| Patient/Population group | Intervention | Comparator | Outcome |
| *Example: CF Adults with haemoptysis- registry data shows approx. 40% population per year* | *AI algorithms to visualise site of bleed leading to embolization treatment.* | *CF Adults with conventional imaging and Rx pathways.* | *Frequency of haemoptysis post intervention. No. of Complications*  *Number of haemoptysis episodes year before embolization for both groups* |
|  |  |  |  |
|  |  |  |  |

1. Do you envisage any hazards or risks with the implementation of such technology? Please use the Risk Score matrix below to assign a level to any risk perceived any mitigation actions that could be taken.

* *Risk of lack of clinical engagement- rotational staff*
* *Risk of uptake/use*
* *Technological risks*
* *Financial risks*
* *Methodology risks*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Likelihood** | **Consequence** | | | |
| **Insignificant** | **Minor** | **Moderate** | **Major** |
| **Almost Certain** | Medium | High | High | Very High |
| **Likely** | Low | Medium | High | Very High |
| **Possible** | Low | Medium | Medium | High |
| **Unlikely** | Low | Low | Medium | Medium |
| **Rare** | Low | Low | Low | Low |

1. With the above in mind, how often would the new technology/pathway be audited? Whose responsibility would this be?
2. Please complete the [HRA decision](http://www.hra-decisiontools.org.uk/research/) tool to clarify if your project is classified as research and note the outcome below (http://www.hra-decisiontools.org.uk/research/)
3. What funding, if any, have you secured for this project?

References:

Internal Use Only

|  |  |  |
| --- | --- | --- |
| Statement | Outcome | Notes |
| Have we completed similar project before- address the same end service user need? | Y/N |  |
| Is the project described above a strategic priority for us? | Y/N |  |
| Defined next steps   1. To subcontract to market (Name SME) 2. To build in-house | Market/Inhouse |  |

Next Steps:

1. If SME collaboration, complete SME Collaboration Pack (to be created and hyperlinked)
2. If in-house build, complete CSC Project Pack (to be created and hyperlinked)
3. Feedback to Collaborator

*If the project described above does not meet our strategic goals/already has a solution in place or is not appropriate for roll out in secondary care, please describe this below.*

*Or*

*Next steps if submission successful:*

* *Project number/title-header of document- in line with Website UID*
* *Defined outcomes and evaluation scope to be completed with author of the submission.*
* *Complete the correct collaboration pack as stated above.*
* *Registration of project-QIPS, AI Board approval (*[*See directory of contacts for support*](https://emckclac.sharepoint.com/:w:/r/sites/MT-CSC-CSC/_layouts/15/Doc.aspx?sourcedoc=%7B6334FCEE-F574-4350-8924-82BC92CBF7EF%7D&file=Directory%20of%20contacts.docx&action=default&mobileredirect=true)*)*
* *Data access and allocation pathways*
* *Timeline of proposed project plan*