Oxford Health NHS
NHS Foundation Trust

CRIS
Case Record Interactive Search - What can it do for researchers?

What is CRIS?

Case Record Interactive Search transforms clinical information held in the Trust Electronic Health Record (EHR) pseudonymises[1] it and places it in a secure searchable repository.

Why is CRIS of interest to researchers?

CRIS allows searching of many parts of the EHR. Importantly it does not rely on structured data 'fields' such as 'diagnosis' to be completed. Clinicians primarily record and update information held in the 'progress notes' or 'clinical notes' (unstructured data) and don't necessarily complete the fields in the EHR that holds information that may be of interest.

CRIS can search for relevant case records, based on search criteria of either structured or unstructured data, removes patient identifiers such as date of birth, name, NHS Number, address etc and locates the relevant terms e.g. medication names or certain groups of symptoms, the data is then stored securely in a searchable repository ready for analysis.

How can CRIS be used for research?

1) The pseudonymised data can be used to investigate hypothesis and outcome driven research. Examples:-

- Is there a test for those with Alzheimer's disease that can show if drugs would be the best treatment?
- Do some drugs for schizophrenia affect physical health, for example diabetes?
- Do people's home living arrangements affect how long they spend as inpatients, receiving care in hospital wards?
- Who benefits, and who does not, from taking particular medicines or receiving particular psychotherapies?

Data can also be used for research feasibility – e.g. before embarking on a piece of research you may want to know how many patients there are with a particular diagnosis. CRIS provides a much more accurate sample than previous systems that were not able to search the unstructured data.

[1] Pseudonymised data is anonymous to the people who hold or receive it (e.g. a research team), but contains information or codes that would allow others (e.g. those responsible for the individual's care) to identify an individual from it.

2) Patient cohorts can be identified and invited to take part in research through a controlled process known as 'Consent for Contact' where patients will be able to opt in to being contacted directly by researchers.

Current capability and advantages

Currently CRIS can be used locally for all information held in RiO over the last 5 years therefore allowing access to a very large amount of static data that can be efficiently analysed. Discussions are ongoing regarding the use of CareNote linking to the CRIS system and how we can maximise real time data through the new EHR. In addition there is a possibility of federating the CRIS across NHS organisations which will give greater access to a vast amount of EHR, initially within mental health.

Have there been peer reviewed publications using CRIS?

Yes. There are now in excess of 40 publications relating to CRIS. For publications on the use of CRIS for research please see:-

The Psychiatric Case Register: Noble Past, Challenging Present, But Exciting Future Perera, G., Soremekun, M., Breen, G. & Stewart, R. Sep 2009 In: British Journal of Psychiatry. 195, 3, p. 191-193.

The South London and Maudsley NHS Foundation Trust Biomedical Research Centre (SLAM BRC) Case Register: Development and Descriptive Data Stewart, R., Soremekun, M., Perera, G., Broadbent, M., Callard, F., Denis, M., Hotopf, M., Thornicroft, G. & Lovestone, S. 12 Aug 2009 In: BMC Psychiatry. 9: 51.

For recent publications from SLaM researchers please visit the below link
http://www.slam.nhs.uk/about/core-facilities/cris/cris-publications

Is CRIS secure?

CRIS has undergone extensive review internally at OHFT and received REC approval for its use in OHFT (REC Reference 15/SC/0247). Access to the system is administered by the CRIS Oversight Group, which considers applications for CRIS use.

How do researchers access CRIS?

First step is to contact Tanya Smith CRIS coordinator Tanya.smith@oxfordhealth.nhs.uk who can take you through the processes involved.

Summary of access process

- Discuss the research question with the CRIS coordinator who will guide the researcher in terms of feasibility
- Apply for approval to use CRIS through the Oversight Group
- Apply for ethical review if the research requires identification of patients (this will be available when the consent for contact process has been rolled out in the Trust)
- If the CRIS use is approved by the Oversight Committee the researcher will be set up as a CRIS user.

If you would like to know more or have any questions please contact
tanya.smith@oxfordhealth.nhs.uk