

Title of Project:

CREDO: Computing Research Enhances Delivery of Oncological services

Principal Investigator:

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Aim(s) of Project:

Credo is a clinical trial of knowledge management, decision support and automated clinical workflow systems in cancer care using CRUK's *PROforma* technology. The trial is intended to establish whether such technologies can yield improvements in consistency, quality and safety of cancer care. (More information at: <http://www.acl.icnet.uk/lab/credo.html>.)

The Credo system

The Credo system is a collection of software “agents” that can support and coordinate all phases of breast cancer care from first presentation through treatment and follow-up, including support for clinical, administrative, research and patient services. Credo services will include support for:

- Patient management and referrals by GPs
- Mammographic screening and follow-up
- Genetic risk assessment
- Diagnosis and staging
- Therapy planning
- Recruitment into clinical trials
- Provision of patient information
- Communication and coordination of all participants in the patient's care

The trial is intended to establish whether such support can:

- significantly improve the effectiveness, consistency and quality of cancer service delivery;
- facilitate clinical research and the translation of results into routine practice;
- ease practical pressures and administrative burdens on clinicians.

Several clinical centres of excellence in the UK and USA have agreed to participate in the trial.

The Credo system is being built using [TALLIS](#), a technology developed at Cancer Research UK for developing and enacting clinical protocols, guidelines and care pathways. Tallis is based on the PROforma process representation language (<http://www.jamia.org/cgi/content/abstract/M1264v1>) which is thought to be the first language designed specifically for formalising clinical processes and which has been used successfully to deploy practical clinical applications in oncology and other medical area. Tallis supports dissemination of PROforma applications over the internet, and the creation of repositories of standard (reusable) applications and components for others to download and adapt to meet local requirements.

Please list 3 deliverables that the project will contribute to the UK and/or international cancer informatics community

1. An infrastructure to support seamless delivery of cancer care from primary care referral through treatment, follow-up, after care and ultimately discharge.
2. Report of experience with TALLIS/PROforma technology and results of a clinical trial of the technology in a large-scale, multi-centre trial.
3. Construction of a computer-interpretable process model of cancer care which can be adapted to other cancers and, potentially, other diseases requiring complex management.

Please describe how the project will incorporate and/or re-use existing informatics infrastructure and/or resources. If the project will not use any existing infrastructure or resources (e.g data standards or ontologies) please explain why this is the case

- NHS patient record and data model (when available)
- HL7 Reference Information Model
- Standard medical terminologies (e.g. SNOMED, GALEN)

Please describe the plans for the sharing of data and dissemination of knowledge that arise from the project:

- Tallis technology for implementing PROforma protocols, guidelines, care pathways etc is available for research use.
- Credo trial database will be designed for external access to permit other researchers to access and analyse trial results.

Contact details for liaison person should further information be required:

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