

# **Care Process Pathways centred Electronic Health Record for improved clinical decision quality, implementation of new knowledge and patient safety.**

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Despite the introduction of multi-disciplinary team working, the professions still maintain much of their traditional ‘silo’ centric approach to knowledge exchange across their specialist domain boundaries. Whilst Continuing Professional Development requirements should ensure that appropriately validated new knowledge is properly disseminated within these domains, procedures to confirm its adoption in practice are missing. There also tends to be little in the way of formalised interdisciplinary exchanges, reinforcing the ‘silo’ effects.

Currently this effect is fairly well mitigated by clinical management use of procedures, guidelines and recommended best practice processes and pathways to establish performance standards as the basis of good governance. However problems and adverse events have been shown by forensic studies to arise out of variability at the detailed level and in particular where there are hidden or unrecognised interdependencies between treatment practices by different professions, as well as at the interface of different healthcare settings.

This project will focus on developing and validating a methodology for improving quality of clinical decisions and implementation of new knowledge in different health care settings (such as primary care, hospital, community care) by different target groups in a multidisciplinary environment. Factors determining the successful and timely implementation of new recommendations/guidelines/procedures, will be identified and validated, including learning cycles from adverse events in the context of patient safety.

Recommendations will be issued for closing the research-practice gap in the implementation of evidence based clinical guidelines in Europe using a unified “whole-systems” approach to inter-relate end-to-end processes using care process pathways; development and deployment of appropriate human resource skills and knowledge; integration of ever increasingly complex information systems, content and flows; identification and mitigation of attendant risks of adverse events aiming to improved clinical decision making and patient outcome optimisation.

This can be achieved through an adaptation of the way the Electronic Patient Record (EHR) is created. The proposed approach centres on the use of well-structured Care Process Pathway maps as a means of semi-automatically logging events into the EHR.