# Chapter 7
# Safe Implementation of Research into Healthcare Practice through a Care Process Pathways Based Adaptation of Electronic Patient Records

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## ABSTRACT

*Concern has been expressed over the lack of evidence of the effective transfer of new research findings, guidelines and protocols into front-line clinical use. This book chapter outlines an approach which focuses on establishing and then using existing end-to-end care process pathways as initial benchmarks against which to evaluate the effects of changes in clinical practice in response to new clinical knowledge inputs. Whilst the prime focus of this approach is to provide a robust means of validating improvement in best practice processes and performance standards as the basis of good clinical governance, it will also seek to identify potential risks of adverse events and provide the basis for preventive measures, further backed-up by training within the relevant specialist domains. The objective is to close this loop by monitoring incremental change in care processes through a rolling analysis of input to Electronic Patient Record integrated into the clinical governance process. A pathway-linked knowledge service approach that could radically simplify and speed up the record updating process that supports and does not impinge on the professional autonomy.*

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## INTRODUCTION

Despite the introduction of multi-disciplinary team working, the healthcare professions still maintain much of their traditional 'silo' centric approach to knowledge exchange across their specialist domain boundaries (Pirnejad, Bal, Stoop, & Berg, 2007). Whilst Continuing Professional Development requirements should ensure that appropriately validated new knowledge is properly disseminated within these domains, and clinical decision quality is improved, procedures to confirm its adoption in practice and quality improvement 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 (Kohn, 2001).

Healthcare providers also exhibit the same 'silo' approach displayed as by their constituent professions, due to the need for all organisations to set boundaries that clearly delineate the limits of operations with obvious implications in continuity of care (Pirnejad et al., 2007). The unfortunate consequence for patients is that their end-to-end care process threads its way across these domain boundaries with resultant changes both in organisations and professionals in responsible for their treatment.

The overall effect is that there is a lack of clarity of the likely sequence of events involved in resolving or ameliorating the patient's presenting conditions, especially when new procedures and guidelines are adapted. The prevailing culture appears to consider that it is pointless to have to have even an approximate plan of action in view of the innate variability in the progression of either the illness concerned or its treatment. However, this is tantamount to saying that in other potentially hazardous domains, the use of navigation charts and flight plans are unnecessary, as they will not be followed to the letter – which is patently wrong and would be highly unsafe!

The key issue is that whilst such charts fulfil the need for the point of reference for decision making in these domains, their use is noticeably absent in the clinical domain. This defect is even more evident in the context of the complete cross-border 'patient journey' from one end of the overall process to the other. This transit not only crosses primary, hospital and community care organisational boundaries, but also many treatment stages, which may well be 'fenced-in' within departmental sub-domains settings, as shown in Figure 1.

*Figure 1. The cross border patient journey through the different healthcare settings*