Integrated Care Pathways and Variance: a source of Practice-Based Evidence?

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Special thanks to my supervisors
Tony Solomonides & Ian Beeson
Background

- Evidence-based medicine
  - The evidence hierarchy

<table>
<thead>
<tr>
<th>Category</th>
<th>Source</th>
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| A        | Evidence from:  
  - meta-analysis of randomised controlled trials, or  
  - at least one randomised controlled trial |
| B        | Evidence from:  
  - at least one controlled study without randomisation, or  
  - at least one other type of quasi-experimental study |
| C        | Evidence from non-experimental descriptive studies |
| D        | Evidence from expert committees or opinions and/or clinical experience of respected authorities |

- The problems of quality and information overload
- Problems with medical evidence (case selection, etc.)
Evidence used in NICE guidelines

“The truth is that a lot of guidelines are based on a lot more opinion, and that’s I suppose the biggest drawback”

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A care pathway maps out a pre-defined set of activities and/or choices within a specified scope, which may be applied to one or more issues or problems. It defines what should be recorded about the care delivered in such a way that variance between proposed and actual care can be audited and local practice refined accordingly.

A care pathway may specify the goal and/or expected outcome, the data required, decisions and choices that may be appropriate (with supporting arguments) and actions to be carried out, when and by whom.

Benson, 2005 (NPfIT)
Practice-based Evidence

Examples

- MammoGrid – the creation of a validated evidence base

- Off-label prescribing – generalisation to a wider population or the use of a related drug.

- Integrated Care Pathways – potentially a means to capture and distribute evidence from practice.

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Knowledge Grids

General Healthcare

- Issues Including:
  - Tailoring treatments to the individual
  - Guidance on drugs, inc. ‘off label’, across national boundaries
  - How to deal with variations in care plans when patients travel
  - Decision support systems supporting the above
Medical knowledge

Medical Evidence

- Evidence from Practice
- Validated Evidence
- Delivery Methods

Variance Analysis
Integrated Care Pathways
Clinical Guidelines & Protocols

Personal Experience / Evidence Silos

Legal & Ethical Landscape

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Variance tracking and analysis

The reasons for variances; not all variance is negative!
Approaches to variance analysis
Questions concerning the capture, analysis and validation of variances, with provenance and reliability being key considerations*

Could the results of ICP variance analysis be sufficient to challenge recommendations based on expert opinion?
ICPs can be similar, in terms of detail, inclusion criteria, etc. to research protocols. Can the variance tracking and analysis mechanism be methodologically sound enough for medical professionals to have confidence in evidence from this source?
However, as noted by Eraut*, there are inherent problems with attempting to combine “evidence grounded in different types of knowledge”.

Interview Findings

- Adoption of ICPs and guidelines can be a complex process, involving branding, publishing rights, and update rights/responsibilities.
- An ICP’s ‘success’ is not necessarily gauged by how effective it was at bringing about change.
- The dangers of blindly following an ICP were recognised, and experts would not be afraid of deviating where they felt they knew better.
- The problem of ‘emotional reactions’ to bad outcomes – they might appear irrational, but could also be right.
Conclusion

• Refeeding syndrome: an example from Gastroenterology

• Future work

• Questions?

Thank you for your attention!

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