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Title: Do palliative care health professionals settle for low level evidence?

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The findings of the recent independent review of the UK Liverpool Care Pathway (LCP)¹, following substantial concerns raised by members of the public and health professionals found that the implementation of the LCP is often associated with poor care¹. The Neuberger Report highlighted the complexity of various ethical, safety, clinical practice and negligence issues associated with pathway usage and how, despite technological advances, diagnosing dying continues to be challenging¹. The UK Government's decision to phase out the LCP as policy following these findings, has generated considerable debate both within and beyond the UK². However, another key issue raised by the Neuberger's report is the issue of the palliative care community's perceived willingness to readily adopt new clinical practices in the absence of evidence. It is this translational issue that this editorial explores.

In the thirty five years from 1970, the proportion of peer-reviewed publications in palliative care in relation to all publications more than doubled³. Arguably the quality has also improved, with one in every 122 controlled clinical trials ever published in the literature as a whole being in palliative and supportive care⁴. Much of the literature is distributed throughout a very large number of journals³, making the process of assembling and synthesising the data an ongoing challenge. These findings confirm the concerted effort that palliative care researchers are making into continuing to build a strong evidence base for clinical practice and for public policy.

Despite these positive developments, the Neuberger report highlighted that nearly 10 years after its widespread dissemination, prospective testing of the LCP had yet to be undertaken at a level of rigor sufficient to adequately support crucial national policy decisions¹. Several before and after studies have been conducted, reporting positive

effects of the LCP⁵⁻⁷. The common shortfalls of these studies variously included the lack of control arms, data collection that was not contemporaneous and sampling that lacked comparable groups⁸. Data from these studies can be seen as hypothesis generating, allowing more refined design for subsequent rigorous investigations, but should not be seen as definitive in and of themselves. Further, these data have been complemented with a number of non-experimental studies (i.e. reviews, letters, audits, case reports and qualitative studies) supporting the effectiveness of the LCP for improving outcomes^{8, 9}. Study designs and articles of this type, while useful, should never be used to conclude effectiveness. Even when combined, this evidence should not have been seen as sufficient to change practice at a national level anywhere around the world.

The widespread adoption of the LCP in many countries suggests that there was a willingness in the sector on this occasion to translate evidence into practice prematurely⁸⁻¹⁰, while conversely it remains challenging for other high level evidence from well conducted trials to be adopted efficiently^{11, 12}. It is speculative, yet reasonable to assume that if high level evidence indicated that the LCP was *truly* effective and where had been quantified so they could be mitigated, the current status of LCP could have been different.

The limitations to conducting palliative and end-of-life care research are well recognised, but these barriers should be viewed as challenges that require further efforts to address effectively, rather than used as the rationale for settling for a lower level of evidence upon which clinical practice and policy decisions are made. The research team led by Costantini should be congratulated for their research program

investigating the effects of the LCP. This team sought to systematically develop through a rigorous program of research that operationalise the Medical Research Council (MRC) framework for evaluating complex interventions ¹³⁻¹⁶.

The concepts of evidence-based medicine are less than two decades old. As such, how do we as a global clinical community in palliative care support each other to develop the requisite critical appraisal skills? This requires a whole-of-sector approach in order to use the available evidence as effectively as possible. To achieve this, palliative care should only be taught by those who have the clinical expertise as well as the competency in evidence-based healthcare and critical appraisal skills. Palliative care professionals must continue, where data are lacking, to find ways to improve the evidence base by extending existing research to address current gaps in knowledge. This asks a great deal of a clinical community that has come late to developing the evidence that can underpin key decisions and implementing such knowledge systematically 17.

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