PDTA and Digital Dashboards: Essential Tools for a Changing Healthcare

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ABSTRACT

Diagnostic Therapeutic Treatment Pathways (PDTAs) are organisational tools that define in detail the best course of treatment for a specific clinical condition, from the...

Diagnostic Therapeutic Treatment Pathways (PDTAs) are organisational tools that define in detail the **best pathway of care** for a specific clinical condition, from diagnosis to follow-up.

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Standardising practices according to scientific evidence, PDTAs aim to ensure continuity of care and homogeneous quality of care across the territory. In a context of increasing complexity of care due to the ageing population and the increase in chronic diseases, **continuous monitoring** of the implementation of these pathways has become increasingly important.

Each PDTA includes a set of **monitoring and evaluation indicators** to measure its effectiveness and efficiency and to highlight any deviations from the expected standards. **The use of a dedicated IT system to monitor these indicators** provides healthcare professionals and decision-makers with essential support: from advanced visualisation of clinical and process data, to active decision support functions for timely and data-driven interventions.

A PD monitoring system is a key tool for monitoring and evaluating PD indicators.

A modern PDTA monitoring system provides powerful **data visualisation** tools that help to quickly interpret pathway performance. Key benefits in this area include:

· **Interactive dashboards**: dashboards that provide at-a-glance status of key indicators, enabling immediate assessment of pathway adherence and clinical outcomes. These intuitive dashboards show up-to-date data almost in real time, allowing any deviations from the norm to be identified immediately.

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· **Historical trend analysis**: dynamic graphs highlight the trend of indicators over time, helping to recognise patterns, improvements or deteriorations in the care pathway. For example, è it is possible to monitor whether a recently introduced intervention is gradually improving a clinical indicator (such as a disease control rate) on a quarterly or annual basis.

· **Comparisons between centres or periods (benchmarking)**: tools that place data from different centres or different time intervals side by side, highlighting differences in performance.

Thanks to these features, healthcare teams and decision makers can easily identify significant variations and worrying or positive trends. **Standardised indicators** also allow for large-scale evaluations: the Ministry of Health, for example, has defined **10 national indicators** to monitor PDTAs dedicated to priority chronic diseases (COPD, heart failure, diabetes, cancer), providing benchmarks to compare the adherence and effectiveness of these pathways across regions (Ministry of Health - The New Guarantee System - NSG).

A computerised system for monitoring PDTAs is also available for the use of the Ministry of Health.

A computerised system for monitoring PDTAs must include **active decision support** functions for clinicians and pathway managers. Advanced computerised systems can offer **evidence-based recommendations** directly to the decision point. Leveraging integrated clinical databases and guidelines, the system can suggest corrective interventions or therapeutic alternatives when it detects off-target clinical indicators.

In this way, computerised monitoring is transformed into a true **Clinical Decision Support System**, supporting the practitioner with useful and contextual indications without replacing clinical judgement. The result is faster, more informed and best-practice decision-making, with a potential positive impact on both patient outcomes and the appropriate use of resources.

A well-structured PDTA information system finally becomes a valuable tool for **clinical audit** and quality management. All data collected on process and outcome indicators provide an objective basis for a posteriori assessment of how the diagnostic-therapeutic pathway is performing with respect to the expected standards. Dedicated modules allow the **systematic recording of deviations** from the expected care pathway, verifying in real time the progress of the PDTA and highlighting deviations from the reference pathway.

The adoption of an IT system dedicated to monitoring PDTA indicators brings concrete benefits in healthcare practice. On the one hand, it improves the **transparency** and usability of data,

providing clinicians and administrators with up-to-date and easily interpretable information; on the other hand, it enables proactive **clinical governance**, consisting of timely alerts and evidence-driven decisions.

Investing in these indicators is a key element in the development of a new system for the management of PDTAs.

Investing in these solutions means equipping oneself with intelligent dashboards and integrated decision support that ultimately contribute to ensuring more effective, appropriate and patient-centred care pathways, in line with the quality and equity objectives of the healthcare system.

Ultimately, a proactive clinical governance system is the key to the success of the healthcare system.

In the final analysis, in a constantly evolving healthcare context, computerised monitoring of PDTAs is no longer an option, but an indispensable condition for effective and modern clinical governance.

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