Lean

Lean

Lean improvement methodologies originated in industrial settings among frontline workers and were pioneered in Japan, - giving rise to much of the terminology used. Kaizen is the Japa - nese word for improvement. A single ‘cycle’ of kaizen activity - is defined as requiring similar steps to a PDSA cycle. The same application can be used in health care, with many sequential cycles growing to ‘continuous improvement’. The essential philosophy behind lean methodologies is the elimination of waste through continuous improvement. Lean identifies seven forms of waste, each of which is relevant to health care (15.6). Identifying waste leads inevitably to the need to define value from the perspective of the patient, a factor that is central to the Choosing Wisely initiative (https://www .choosingwisely . org).

Overproduction Example: ordering unnecessary preoperative tests Solution: implementation of evidence-based preassessment pathways Inventory Example: storing excessive medication or supplies in ward storage with a risk of them going out of date Solution: alphabetically ordered medication cupboards with small amounts of commonly used drugs in conjunction with an ef /f_i cient replenishment system Waiting Example: patients waiting long periods to come to theatre Solution: staggered admission times aligned to operating theatre schedule Waste of transportation Example: using trolleys to bring ambulatory day patients to the operating theatre Solution: better design of the admissions process to enable patients to walk to theatre W aste of overprocessing Example: using computed tomography scans to assess children with possible appendicitis Solution: consider whether ultrasound could be used instead Defect Example: patients arriving for surgery with incomplete or inappr Solution: more robust checking systems before patients come to theatre Motion Example: frequent sear ching in theatres and the anaesthetic room to /f_i nd necessary drugs and equipment Solution: an ef /f_i cient theatre layout, common to all operating theatr minimal movement and always in the same place

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