Supplementary File 2

Definition of Key Terms

Terms	Description
Low value care	This was as defined by the authors of papers but included any form of healthcare service and/or intervention which conferred little or no benefit, may cause patient harm, or yielded marginal benefits at a disproportionately high cost.
Clinician	Any reference to a health professional actively involved in treating patients in any setting. Health professionals who were managers and researchers with no direct patient contact were not regarded as being clinicians.
Health care	Defined as per the Cambridge Dictionary as "A set of services provided by a country or organisation for the treatment of the physically or mentally ill" (1).
Intervention	A single program element or combination of program elements or strategies or measurements designed to produce an outcome change among individuals or an entire population. Examples in the context of the identification of low value care may include screening tools or diagnostic tests, measurement of waste, prevalence of services, costs of services, or identification of low value care by engaging with patients.
Identifying low value care	Identification was as defined in the included records. When selecting records that addressed identification we did not require that a low value procedure be documented as low value for all patients, as it is recognised that this is rarely the case (2). Records were included that identified low value care using a process (ideally a systematic process). Records where lists of low value care services or technologies were used to identify low value care were only included when other components were included to identify or address low value care, the importance of which has been highlighted (3).
Multicomponent processes	Multicomponent processes were considered those consisting of more than one individual component, with each component expected to have separate effects (4) or interacting effects, and with each component considered discrete, active elements of the process (intervention) that can be implemented independently of other elements (5). Multi-phased components or strategies could be involved. The multiple components could consist of two or more identification components alone or in addition to a component addressing or reducing low value care. The

	rationale for the focus on two or more components was theory-informed and based on process models and theories of de-implementation and a transdisciplinary framework to identify overuse in health services in which identification was clearly included. These models, theories and frameworks all included two or more identification components. For example, in the process theory by applied by Voorn et al. 2018 two stages of identification prior to selecting de-implementation strategies were: (1) detection of improvement goals; and, (2) problem analysis of current care, the target group and setting (6). In the process model for de-implementation by Niven et al. 2015 three stages were relevant to the identification of low value care: (1) identify and prioritise low value practice; (2) assess current use of low value care practice; and (3) adapt knowledge to local context (7). In the transdisciplinary framework, three components of a process to identify overused health services were: (1) using the best available data, research evidence and guidelines; (2) conducting jurisdictional scans to identify services overused in other health systems and whether those services are used locally; and (3) engaging stakeholders and consumers to prioritise services for de-implementation) (8). Classification of identification components were based on three components of a framework derived from literature to identify overused health services (8). Classification of de-implementation components was based on an intervention framework of low value health services (9). Two or more activities were not considered the same as two of more components, for example, interview and focus group activities each used to identify low value care with stakeholders were regarded as a single data gathering component whereas a workshop that had different phases firstly to identify and then prioritise was regarded as multicomponent.
Original studies	Original studies or papers were defined as those bringing new knowledge, data, information and conclusions. Studies included were those where: there was primary data analysis, processes had the potential to be replicated; and criteria aligned with scholarly inquiry, were conducted in a formal or systematic manner, and where methodology and authorship were applied (10).
Stakeholder engagement	Stakeholder engagement in health research was defined as integrating the perspectives, values, and lived experiences of affected individuals to enhance understanding of a health or community issue (11) or of those involved in the health service or low value care delivery.

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