Supplementary File 3

First Author	How is Low Value Care Defined?	Main Terms in Definition or Key Concepts
Basharat & Born (2021) (1) ^	Low value interventions were defined in the key messages and background section as providing "little clinical benefit, may be harmful for patients, and waste limited resources". Harm and waste were applied in prioritisation. In addition other areas beyond the definition were applied in the methods section of the paper including overuse categories, area of need, commonly applied in practice.	Resources, harmful, little benefit
Chalmers (2018) (2) ^^	Low value care defined in the introduction as offering limited or no benefit and poses unnecessary risks and costs to patients documented but not applied. Investigated recommendations from Choosing Wisely lists.	Benefit, risks and cost*
Chien (2020) (3)	Not explicitly defined. Authors noted in the methods they developed an operational definition for each perioperative test deemed low value for surgical inpatients which they based on literature and information from the ICD-9-CM codes, demographic data and the type and timing of each service.	Risk
Cho (2022) (4) ^	Defined in the introduction as *"Low value care is defined as a healthcare service in which evidence shows little or no benefit for patients, and the potential of harm exceeds benefit."* Obtaining multiple perspectives were part of the objective of the paper, in particular consumers. Methods started with requesting examples of low value care from members of a Hospital Quality and Patient Safety Committee in a survey using the concepts of overuse, benefit and value outlined in the supplementary file section of the paper, thus the applied definition differed somewhat to the formal definition.	Benefit, harm*
Dalton (2017) (abstract) (5)	Not explicitly defined. In the abstract, it was noted that an initial low value care list was practices already identified as low value *"by other specialities."* A rapid review was conducted to confirm low value care status of practices in pediatric patients.	Not applicable

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Daniels (2019) (6)	Not explicitly defined. However, in the background section of the paper, alerts that were identified as *"having limited clinical value"* were to be considered for reduction. It was also noted that analysis was needed regarding *"justified"* and *"unjustified"* alert overrides.	Clinical value, (un)justified**
Dora (2021) (7)	Not explicitly defined. *"Waste of resources"* and posing a *"risk of harm"* to patients was mentioned in the introduction, as was the aim of Choosing Wisely initiatives to *"avoid unnecessary medical tests, treatments, or procedures."*	Waste, risk, unnecessary**
Ellen (2018) (8)	Focus on *"overuse"* which authors define as generally referring to *"care that can lead to harm and consumes resources without adding value to patients"*. Authors note additional terms mentioned in literature including *"'too much medicine', 'low-value care', 'inappropriate use', 'obsolescence' or 'unnecessary care'."* Overuse was applied throughout methods section of the paper and applied processes.	Overuse, harm, inappropriate, unnecessary*
Ena (2018) (9)	Not explicitly defined. Spanish to English translation of introduction made reference to unjustified treatments, items that were overused and did not provide substantial benefit to patients, and were of low value. Other sections of the record made reference to low benefit and the quality of evidence.	Unjustified, overuse, benefit, value, evidence (quality)**
Ibargoyen-Roteta (2017) (Abstract) (10)	Not explicitly defined. Authors note the aim to minimise *"doubtful procedures"* and present the results in relation to *"obsolete or outdated procedures in comparison to more effective/ cost effective alternatives"*, *"doubtful value outside their main indication"* or procedures with *"insufficient"* evidence on their effectiveness. Patients were not explicitly mentioned.	Outdated, effective/ cost-effective, not indicated, insufficient evidence**

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Latino (2022) (11)	Not explicitly defined but in the abstract low value was equated with non-evidence-based medicines. Aim included an approach to prioritising the most effective and high-impact cancer care medicines as part of a mission to guide and support the Kazakhstan Ministry of Health to continue offering patients quality cancer care. The paper focused on treatment protocols that were redundant or low value that could be updated, removed, or deleted from the national formulary. The process identified medications that were not recommended or of low or marginal benefit based on evidence and standards of care.	Non-evidence based, redundant, benefit**
Malik (2018) (12)	Not explicitly defined but the introduction outlines the desire to move from low value care towards *"equally (or more) effective, but less costly, approaches"*. The methods section of the paper refers to currently used procedures or interventions where recent evidence suggests they are *"ineffective, with overestimated or incorrect outcome improvement"*.	(In)effective, costly, outcome*
McBride (2014) (Abstract) (13)	Not explicitly defined. The objective in this study was focused on creating an algorithm to align physicist checking with severity and risk to patients improve workflow and quality. Conclusion noted the optimisation of efficiency and safety, identification of inappropriate or low value tests, and introduction of more appropriate tests.	Risk, (in)appropriate**
Moes (2019) (14) ^	Defined in the introduction as being where the risk of harm or costs exceeds the likely benefit for a patient. Applied what is *"appropriate care"* to the process of disinvestment, for example, in clinical guidelines and quality standards. The definition was different to what was applied. Program looks to identify value-added and non-value-added steps in the care process, not scraping services or technologies in their totality, but targeting their low-value for certain patients in certain situations.	Harm, cost, appropriate*
Moore (2019) (15) ^	Defined in the background as *"Tests and treatments that are not supported by evidence and could expose patients to unnecessary harm."* Further the authors include the strain on resources at a system level as well as the impacts on patients and caregivers including *"physical and psychological*	Evidence, harm, (in)effective, benefit, cost/expenses*

	harm, delay effective treatment, and increase direct and indirect expenses" Working definition used in the methods section of the paper includes two parts: 1. Low value clinical practice: *"a test or treatment (i.e. admission, monitoring, diagnostic interventions, therapeutic interventions, consultation) ...but is ineffective or its harm/cost outweighs it's benefits"*. 2. Low value injury care: *"clinical practices identified as low-value in at least one level I, II or III study AND considered to be clearly/potentially low-value by at least 75% of experts and not considered clearly beneficial by any expert."*	
Morrisroe (2018) (16)	Not explicitly defined. The initial list was prepared based upon the working group's clinical experiences.	Not applicable
Pablo (2021) (17) ^	A contextualised definition was presented in the introduction. Low value care is services where the *"potential for harm exceeds the potential for benefit (known as overuse or poor value medicine) poses an unnecessary risk to patients and has a negative impact on the efficiency and sustainability of public health systems"*. In terms of application a consensus process was undertaken to accept 'do not do' recommendations. This process considered the *"quality of the evidence on each recommendation, its feasibility in identifying whether it occurred in clinical practice and its foreseeable acceptance by the professional community."* A different definition was applied compared to the formal definition.	Harm, benefit, risk, efficiency, sustainability, evidence (quality)*
Pozo-Rosich (2020) (18) ^	Not explicitly defined, but article focuses on overuse which is defined in the introduction as *"the provision of medical services for which the potential for harm exceeds the potential for benefit"*. Authors also refer to services that are *"entirely ineffective, futile, or that possess such a high risk of harm to all patients that they should never be delivered"* at the extreme end of the value continuum. The methods section of the paper did not apply the concept of 'overuse' but rather selected 'do not do' recommendations based on level of evidence and feasibility.	Overuse, harm, benefit, level of evidence, feasibility, ineffective, futile, risk**

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Radomski (2022) (19)	Defined in the introduction: *"Low-value care, which is defined as the use of health services whose harms or costs exceed their benefits."* In the methods section the authors considered prescribing practices whose *"costs or harms generally outweigh their benefits for older adults (aged 65 years)"* using four domain values: lack of effectiveness, potential for harm, excessive cost, use of a medication to treat adverse effects of another medication. There was evidence of all of these domain values being applied based on supplementary files in the paper.	Harm, cost, benefit, effectiveness, validity/usefulness*
Reis (2021) (20) ^	Defined in the introduction: "Low-value care can be defined as services (tests, procedures and treatments) that provide no benefit to patients or can even cause harm". Authors also note in the introduction, the need to consider procedures that may be "unnecessary" and "harmful", and the need for initiatives to reduce "over testing, over detection, over definition and overtreatment." The application of these concepts differed somewhat in the methods section of the paper which focused on common use, and evidence.	Benefit, harm, unnecessary, harmful, over (testing/ detection/ definition/ treatment), evidence, expensive*
Rushton (2021) (21)	Not explicitly defined. In the introduction authors note that the current model of nutrition care is *"unsustainable"* and that de-implementation of low value care has been defined as the *"process of identifying and removing harmful, non-cost-effective, or ineffective practices based on tradition and without adequate scientific support"* In terms of application workshop participants were asked two questions - the first focused on what individual care could be replaced with systematised care, and the second on what systematised care should be introduced locally to provide *"more effective and efficient nutrition care"*. They voted on practices for de-implementation.	Harm, cost-effective/ ineffective, systematised care**
Schuur (2014) (22)	Not explicitly defined but in the introduction overuse and cost were mentioned. Study aimed to *"identify a 'top five' tests, treatments, and disposition decisions that emergency clinicians order frequently, that have a significant cost, and that provide little or no benefit to a subset of patients"*.	Overuse, cost, benefit, actionability**

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	Actionability also mentioned. In the methods low value care was identified based on cost, benefit and actionability.	
Soril (2018) (23) ^	Not explicitly defined but in the introduction authors suggest the focus should be on services and procedures that might be "unnecessary or of low value for certain patient groups or circumstances". This can include the overuse or misuse of ineffective, inefficient, or even potentially harmful technologies." In the methods the application of defining terms was described in terms of benefit but evidence for this not presented. Harm was not specifically addressed so there was some misalignment between the formal definition and application.	Unnecessary, overuse, misuse, ineffective, inefficient, harm*
Tchou (2021) (24) ^	Not explicitly defined but in the introduction but authors focus on *"waste"* or *"wasteful spending"*. For the application of terms in the methods, items were scored against validity and feasibility by an expert panel. Validity related to extent of evidence or majority opinion (in the absence of evidence) and clear benefit to patients. Feasibility related to ability to assess compliance and the ability of paediatric hospitalists to influence practice.	Waste, evidence, benefit, validity, feasibility**
Wammes (2016) (25) ^^	In the abstract lower value was defined as *"Little or no value to the patient and consequently should not be provided routinely, or not be provided at all"*. In the introduction lower value care was described as *"misuse, overuse, or underuse"* of health care services but the focus of the paper was on overuse. Authors note care is low value if provided *"under circumstances in which its potential for harm exceeds the possible benefit."* This includes *"cost-ineffective care, inappropriate timing of care, or care not in line with the patients' wishes."* Underuse was not applied in the methods section of the paper.	Misuse, overuse, underuse, harm, (cost-)ineffective care, inappropriate, in line with patient wishes*

Wong (2017) (abstract) (26)	In the methods section of the paper low-value RBC transfusions for hospitalised oncology patients were defined as *"a transfusion occurring outside the parameters"* of the algorithm developed, which was *"transfusing to a Hg goal of 8 g/dL if the platelet count was ≤ 50K; otherwise the Hg goal was 7 g/dL"*. This study specific definition was applied in the study.	Outside parameters of algorithm for transfusion*
Zanotti (2019) (27)	Low value care was not explicitly defined. The introduction section of the paper mentioned the need for awareness regarding how to teach value-based care concepts but did not outline what these concepts were. However, the curriculum included value from different stakeholder perspectives, principles of health economics, and techniques for measuring and improving value.	Perspective, cost, quality**

* Terms included in either the formal or applied definitions. **No explicit definition was available, but key concepts were articulated

^ Discrepancy in key concepts or definitions of low value care compared to those applied in methods sections of papers

^^ Definition or key concepts stated but not applied to the methods section of papers

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