The Tension Between Pragmatism and Rigor in Choosing Wisely

Christopher P. Bonafide, MD, MSCE,a,b Kristin D. Maletsky, MD,a Eric R. Coon, MD, MSc

The Choosing Wisely campaign launched in 2012, aiming to “promote conversations between clinicians and patients by helping patients choose care that is supported by evidence, not duplicative of other tests or procedures already received, free from harm, and truly necessary.” Since 2012, Choosing Wisely has grown into a powerful, globally recognized brand in medicine. The campaign’s process for creating top 5 lists of practices that “physicians and patients should question” is distributed and pragmatic: individual medical specialty societies identify members to create a list for their specialty, and members generate the list using methods that range from minimally structured (discussion among members) to highly structured and rigorous (task force formation and systematic review). This flexible approach has enabled rapid and widespread creation and dissemination of Choosing Wisely lists, with >700 active recommendations from 78 specialty societies. However, the variation in methodologies used for list generation across specialties has recently been criticized, and some experts have questioned the quality of the evidence supporting previous Choosing Wisely recommendations for adult and pediatric hospital medicine.

The first pediatric hospital medicine (PHM)–focused list of Choosing Wisely recommendations was published in 2013, generated through a Delphi process convened by the Quality and Safety Committee of the Society of Hospital Medicine. In this issue, Tchou et al provide a timely and much-needed update to the 2013 Choosing Wisely list for PHM. To produce the 2021 list, the team took a more multidisciplinary and structured approach, compared with that of the 2013 list. Leaders of 3 national PHM professional groups (Society of Hospital Medicine Pediatrics Special Interest Group, the American Academy of Pediatrics (AAP) Section on Hospital Medicine, and the Academic Pediatric Association Hospital Medicine Special Interest Group) nominated members with expertise in high value care, research, and education and experience working in diverse practice settings to serve on a 9-member Choosing Wisely working group. The working group first distributed a survey to 5 national PHM e-mail listservs, requesting recommendation ideas from at least 3900 pediatric hospitalists (actual denominator unknown), yielding 397 recommendation ideas. Working group members then distilled the ideas down to 74 preliminary recommendations. These were divided among the working group members who then reviewed the literature and created evidence summaries that described the strength of the study designs and applicability to PHM. Next, in a modified Delphi process, the working group members...
independently rated each preliminary recommendation on the basis of feasibility and validity, dimensions that were defined by the working group. These initial ratings were followed by group discussion, minor adjustments to the recommendations, and a final round independently rating the 66 candidate recommendations that remained. Each recommendation’s final composite score was computed as the sum of the working group’s mean feasibility and validity scores. The 5 highest-scoring recommendations compose the 2021 Choosing Wisely in PHM list. As a final step, the list was endorsed by the Boards of the Society of Hospital Medicine and the Academic Pediatric Association, and the AAP Executive Committee.

The top 5 recommendations promote shortening the duration of intravenous antibiotic therapy before transitioning to oral antibiotics, using narrow-spectrum antibiotic therapy for community-acquired pneumonia, minimizing initiation of antibiotics in infants with isolated maternal risk factors for sepsis, shortening the length of stay for febrile infants admitted with concern for serious bacterial infection, and discouraging subthreshold use of phototherapy for neonatal hyperbilirubinemia. These are important and relevant recommendations for our field.

We applaud the Choosing Wisely in PHM working group for taking on the immense task of voluntarily reviewing a decade of literature in our field and systematically producing a set of recommendations using a structured approach. Their approach has numerous strengths, including the identification of working group members with diverse expertise on the basis of professional society nominations, outreach to thousands of pediatric hospitalists to solicit recommendation ideas, and the use of multiple Delphi rounds to generate the final list. The authors’ inclusion of the full set of candidate recommendations in the appendix enables anyone to review all of the considered recommendations and gain a general understanding of how the working group ranked each one (including the 61 that did not make the top 5).

Careful examination of the working group’s approach to arriving at the top 5 is helpful in considering opportunities for improvement. The scoring system was created by the working group expressly for PHM and involved rating the feasibility and validity of each candidate item. The feasibility dimension combined 3 principles that working group members were asked to consider in generating their score: (1) reasonable methods to measure recommendation compliance, (2) the availability of reliable and unbiased data to measure compliance, and (3) the likelihood of pediatric hospitalists to influence compliance with the recommendation. The validity dimension combined 5 principles that working group members were asked to consider in generating their score: (1) presence of sufficient evidence, if evidence is absent, the likelihood that (2) the majority opinion of the PHM community would support the recommendation, (3) the recommendation would have clear benefit to patients, (4) the recommendation is commonly performed, and (5) experienced hospitalists who follow the recommendation would be considered higher quality providers. The averages of these scores were then summed to generate a total score, with the top 5 highest-scoring recommendations composing the final list.

Overall, the structured approach and scoring system are significant methodologic improvements since the first Choosing Wisely in PHM list, but a few potential problems remain. Below, we suggest actionable opportunities for the Choosing Wisely campaign to make systematic improvements that will benefit lists for all specialties and for future Choosing Wisely in PHM working groups to add rigor and reproducibility to their internal processes. As a starting point, the working group created the measure dimensions for their scoring system de novo for the PHM recommendations because there are no standard methods required by Choosing Wisely. Given that Choosing Wisely publishes dozens of recommendations each year, there is an overlooked opportunity (thus far) for methodologic standardization to ensure a more consistent approach to developing recommendations across specialties. Second, the validity dimension was an amalgam of 5 different principles, each of which is valuable to consider when generating Choosing Wisely recommendations. However, as a result of combining them, the relative contribution of each principle (eg, the prevalence of the practice and the quality of the evidence) toward the final score is unclear. Independently scoring each of these principles would give the PHM community a better understanding of the specific factors that contributed to the final ranking and improve reproducibility. Third, validity was combined with feasibility to produce the final rankings, essentially considering the 2 dimensions of equal importance. Feasibility is only relevant to consider if the evidence supports deimplementation or, in some cases, if there was no evidence to support widespread implementation in the first place.

So how should Choosing Wisely lists be developed across not just PHM, but all specialties to assure a consistent product is delivered across the brand? We propose alignment of list development with the mission of Choosing Wisely by using a standard framework across specialties and societies similar to the processes used in clinical practice guideline development. Because the action naturally associated with the top 5 lists is deimplementation, we suggest applying an existing deimplementation framework that includes the following considerations for prioritizing overused practices for deimplementation:

1. rigorous assessment of the quality of evidence supporting and refuting the overused practice;
2. characterization of the practice as ineffective (consistently strong evidence suggests lack of benefit), contradicted (recent strong evidence suggesting lack of benefit contradicts previous weaker evidence that suggested benefit), mixed (evidence suggesting benefit and evidence suggesting lack of benefit are
Wisely is named as a "help advance deimplementation research support a more rigorous process. This will prioritize, it warrants the resources to quality measurement, and research work will have on clinical decision-making, and equity and how deimplementation would benefit the full demographic range of the population.

These aspects could then be independently scored by a group of panelists comprised of physician specialists in the field, nurses, and other clinicians, along with patients, parents, and payers who are diverse in race, ethnicity, and gender. Scores could then be shared transparently and publicly with a period for comment, followed by a Delphi consensus process that considers the public comments on each of the independent dimensions previous to finalizing the top 5 list.

Applying the proposed framework to Choosing Wisely takes time and resources and is certainly more challenging and expensive to execute than the methods described in this article. So, why do it? There is clearly a tension between pragmatism and rigor, especially when resources are limited. Yet specialty societies like the AAP use highly rigorous approaches when generating clinical practice guidelines, and so why not devote the same resources to Choosing Wisely lists, which may carry a broader impact across the specialty than an individual practice guideline? Despite the original intent to promote conversations between clinicians and patients, Choosing Wisely recommendations are now being used as quality measures for hospital comparisons in PHM and beyond, and Choosing Wisely is named as a "natural partner" to help advance deimplementation research efforts. Given the influence that this work will have on clinical decision-making, quality measurement, and research priorities, it warrants the resources to support a more rigorous process. This will require new investment within and across specialties but will result in more consistent and reliable top 5 lists.

We are grateful to the 2021 Choosing Wisely in PHM working group for developing a new top 5 list for our specialty with recommendations that are already resonating with the PHM community. Our review of their list development methods revealed some limitations that seem to be inherent to Choosing Wisely’s distributed and pragmatic approach, which paradoxically have also contributed to the growth of the campaign since its inception. However, given the gravitas that Choosing Wisely now has, it is time to enhance and standardize the recommendation development process across specialties to more closely resemble the rigorous approaches specialty societies already use to develop clinical practice guidelines. Such standardization will improve the overall rigor and reproducibility in a way that matches the recognition and power of the Choosing Wisely brand and, in doing so, ultimately improve trust in its recommendations across all specialties.

REFERENCES

The Tension Between Pragmatism and Rigor in Choosing Wisely
Christopher P. Bonafide, Kristin D. Maletsky and Eric R. Coon
Hospital Pediatrics 2021;11;e352
DOI: 10.1542/hpeds.2021-006207 originally published online October 19, 2021;

Updated Information & Services
Updated Information & Services including high resolution figures, can be found at:
http://hosppeds.aappublications.org/content/11/11/e352

Supplementary Material
Supplementary material can be found at:

References
References
This article cites 9 articles, 2 of which you can access for free at:
http://hosppeds.aappublications.org/content/11/11/e352#BIBL

Subspecialty Collections
Subspecialty Collections
This article, along with others on similar topics, appears in the following collection(s):
Hospital Medicine
http://www.hosppeds.aappublications.org/cgi/collection/hospital_medicine_sub
Infectious Disease
http://www.hosppeds.aappublications.org/cgi/collection/infectious_diseases_sub
Quality Improvement
http://www.hosppeds.aappublications.org/cgi/collection/quality_improvement_sub

Permissions & Licensing
Permissions & Licensing
Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
http://www.hosppeds.aappublications.org/site/misc/Permissions.xhtml

Reprints
Reprints
Information about ordering reprints can be found online:
http://www.hosppeds.aappublications.org/site/misc/reprints.xhtml
The Tension Between Pragmatism and Rigor in Choosing Wisely
Christopher P. Bonafide, Kristin D. Maletsky and Eric R. Coon
Hospital Pediatrics 2021;11;e352
DOI: 10.1542/hpeds.2021-006207 originally published online October 19, 2021;

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://hosppeds.aappublications.org/content/11/11/e352