American Journal of Emergency Medicine 35 (2017) 306–310

Contents lists available at ScienceDirect

American Journal of Emergency Medicine

journal homepage: www.elsevier.com/locate/ajem

Original Contribution

Overuse targets for Choosing Wisely: Do emergency physicians and nurses agree?

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ARTICLE INFO

Article history:
Received 21 October 2016
Received in revised form 2 November 2016
Accepted 4 November 2016

Keywords:
Overuse
Emergency medicine
Choosing Wisely
Emergency nurses

To The Editor

The Choosing Wisely™ campaign to improve affordability and quality has been embraced by organized emergency medicine [1]. Yet, dissemination has been poor with limited penetration of the campaign to emergency medicine academic chairs and several physician barriers to cost-conscious care [2,3]. Prior work to reduce low-value care in the ED has focused on physicians and demonstrated that local interest in Choosing Wisely may vary from national Top Five lists [4,5]. However, with the advent of team-based emergency care, including nursing order sets, many targets for overuse reduction in the ED may be more sensitive to the clinical decisions of emergency nursing [6,7].

Therefore, we sought to examine the utility of applying a previously developed survey to create a local Choosing Wisely™ "Top 5" list inclusive of all clinicians and to assess provider and nurse agreement on the clinical benefit and actionability of each Choosing Wisely™ target (Fig. 1).

Cross-sectional survey of emergency clinicians in three EDs of a large healthcare system. The survey was distributed to 334 staff, including 149 emergency providers with ordering roles (attending physicians, resident physicians, physician assistants and nurse practitioners) and 185 emergency nurses. This study was classified as exempt by the institutional review board.

The survey was based on a previously published, web-based survey tool but designed for local distribution after input of ED leadership groups. Low-value was defined as tests, treatments, practices or decisions frequently performed with little to no clinical benefit and under the control of emergency clinicians. A list of over 70 potential targets was developed and reviewed by a multidisciplinary ED Patient Safety and Quality Committee to identify targets with the most local relevance. From this list, a total of 17 overuse targets were selected: 3 medication practices, 7 laboratory studies, 4 advanced imaging studies, 2 admissions decisions, and 1 follow-up recommendation (Table 1).

Participants were asked to score 17 distinct action statements of overuse constructed similarly to the Choosing Wisely™ campaign. Each statement was scored on clinical benefit using a 5-point Likert scale ranging from "Very Beneficial" to "Very Harmful" and actionability using a 5-point Likert scale ranging from "Very Actionable" to "Very Inactionable."

The survey was conducted electronically using Qualtrics software (Qualtrics, Provo, UT) in October 2014 with two reminder invitations sent in the following month to non-responders. Results were analyzed using SAS version 9.4. We report descriptive statistics with 95% confidence intervals for clinical benefit and actionability on each target. We compared scores between clinician types (provider versus nurse) using unpaired, 2-tailed t tests. To assess value, each statement was ranked using a 'target index' calculation. The target index was calculated as the

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http://dx.doi.org/10.1016/j.ajem.2016.11.016
0735-6757/

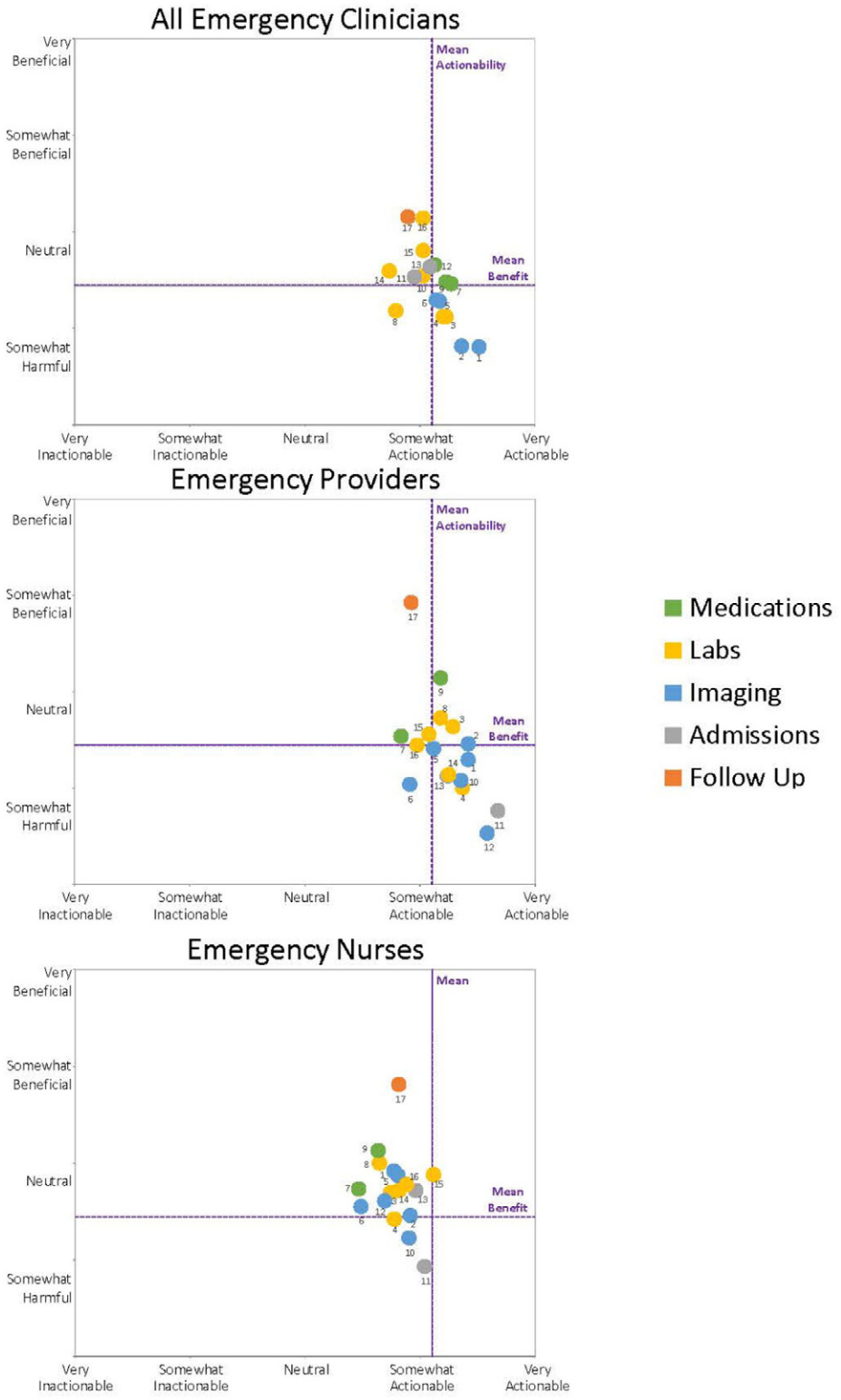

Fig. 1. Clinician reported clinical benefit and actionability of potentially low-value emergency care practices.

mean actionability score multiplied by the quantity of five minus the mean clinical benefit for each statement; therefore, a lower mean clinical benefit and higher mean actionability generated a higher target index.

Of 334 staff surveyed, 155 (46.4%) responded including 47 attending physicians, 31 resident physicians, 18 mid-level providers and 59 emergency nurses. The proportion of each clinician type who responded was not statistically different from non-responders ($p < 0.01$).

The Top Five locally identified targets based on the target index across all clinicians are all currently included in the two national American College of Emergency Physician's supported lists for the Choosing Wisely™ campaign [1]. Table 1. Three of the top five statements focused on imaging (MRI for back pain, CT imaging for suspected PE, and CT of the cervical spine in trauma), while two were focused on the ordering of unnecessary blood cultures in patients with urinary tract and skin infections. The