“Choosing Wisely” in Breast Cancer Surgery: Drivers of Low Value Care

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Perhaps unknowingly, breast surgical oncologists have actively engaged in longstanding efforts to reduce the use of low value care. A myriad of practice-changing examples exist in the literature. For example, the landmark NSABP-B06 clinical trial prompted the abandonment of radical mastectomy when lumpectomy plus radiation resulted in excellent cancer outcomes.¹ The routine use of sentinel lymph node biopsy (SLNB), first in clinically node-negative and then node-positive patients, revolutionized surgical management of the axilla.^{2,3} Similarly, results from CALGB 9343 demonstrated that radiation could be safely omitted in select women aged ≥ 70 years with hormone-receptor positive invasive cancer who had lumpectomy with endocrine therapy.⁴ Lastly, the ongoing Comparison of Operative versus Monitoring and Endocrine Therapy (COMET) trial aims to identify a subset of women with low-risk DCIS that can safely forego standard therapies.⁵ Collectively, these appropriate de-escalations of treatment have reduced morbidity for patients, informed clinical guidelines, and resulted in reductions of healthcare costs and burden.

In their study, “Barriers and Facilitators to De-Implementation of the Choosing Wisely Guidelines for Low-Value Breast Cancer Surgery,” Dossett et al. evaluate whether and why surgeons have de-implemented four breast surgical practices deemed unnecessary by “Choosing Wisely” guidelines, outlined below. Breast cancer surgeons ($N = 18$) were recruited from across varied

practice settings to assess their knowledge and adoption of the guidelines. Approximately half reported routinely avoiding reexcision after lumpectomy for negative margins (#1: SSO-ASTRO “no tumor on ink”) and foregoing completion axillary lymph node dissection in women with limited nodal metastases (#2: ACOSOG Z0011). In contrast, the majority of surgeons interviewed reported continued use of SLNB in women aged ≥ 70 years with hormone receptor-positive breast cancer (#3: SSO Choosing Wisely Guideline),⁶ as well as routinely offering contralateral prophylactic mastectomy (CPM) to average-risk women with unilateral breast cancer (#4: American Society of Breast Surgeons Guidelines). Overwhelmingly, practice concordance with the “Choosing Wisely” guidelines was strongly influenced by a robust evidence base supporting de-implementation, surgeons’ confidence in or agreement with the available evidence, knowledge of the respective guideline, desire to reduce patient harm, and social norms about appropriate use. Conversely, lack of adoption of the guidelines was attributed to a weak or uncertain evidence base, unawareness of available guidelines, patient demand for a procedure and surgeon respect for patient autonomy, and influence by other members of the care team (e.g., medical or radiation oncologist).

These findings are consistent with the broader literature on de-implementation of unnecessary, low-value care. Available estimates suggest that almost half of all medical care is based on inadequate evidence about its effectiveness.⁷ Even when robust evidence exists, it is less likely to be translated successfully into practice if findings are not compelling to physicians, conflict with their prior experience, or seem unrelatable to the clinical situation.^{8,9} Physicians also often model their behaviors in line with their colleagues, with whom clinical evidence or guidance is frequently shared and discussed.¹⁰ On the contrary, the

wide-spread adoption of the SSO-ASTRO guidelines for margins after lumpectomy has been attributed to the “plan-study-do-act cycle,” in which multidisciplinary experts completed a rigorous evaluation of existing data, co-published the meta-analysis in multiple journals, and publicly endorsed these guidelines through the voice of influential leaders in the field.¹¹

Taken together, these findings suggest important implications for efforts aimed at reducing or eliminating low-value oncology care. In clinical situations where there is robust and conclusive evidence supporting de-implementation with clear evidence of patient harm, strategies focused on guideline dissemination and provider and patient education may be sufficient to drive de-implementation. The use of these approaches coupled with strong clinical leadership and organizational culture against use may be particularly effective. In contrast, clinical scenarios with limited evidence or poor buy-in among the surgical community may require more intensive intervention to result in practice change. Indeed, multicomponent interventions have been suggested as most effective to tackle the use of low-value care.¹² Such approaches may include the broad community-level education and clinical leadership noted above but also may require individualized physician profiling and feedback on their use of select low-value care.¹³ Additionally, strategies to better integrate guidelines into “front line” care decisions, such as the use of clinical decision supports or embedding alerts into EHRs, and/or shifting payment incentives through adoption of value-based payment models can be incredibly effective.¹⁴ To date, fee-for-service payment models have arguably incentivized treatment, regardless of its benefit. The national push toward high-quality, low-cost care endorses timely, efficient, patient-centered treatment that is guideline-adherent and promotes shared decisions.¹⁵

While important, many of the aforementioned strategies ignore patient-level drivers of low-value care. Incorporating patient-centered strategies into de-implementation initiatives is critical to ensure success. This is particularly germane in breast cancer care, where many treatment decisions are highly preference-sensitive. For example, patient-provider communication can be powerful in efforts toward reducing low-value care. In the case of CPM, Parker et al. reported that one of the most important factors affecting a change in women’s decisions regarding use was discussion with and education by their surgeons.¹⁶ Such conversations should be transparent and authentically account for potential physical, emotional, and financial costs and burden (e.g., higher patient payments, treatment side effects, disruption in employment and life), which may help pivot patients toward understanding that more care is not always better.¹⁷ For use of SLNB in older women, discussions around the low, but real, risks of lymphedema

may influence patients toward opting out; likewise, cultural norms among breast cancer survivors may promote patients to question therapy that does not add value. In addition, to adequately address low-value care, guideline development should consider outcomes that matter to patients and their families, a recommendation that also would behoove studies evaluating the impact of de-implementation efforts.

Ultimately, unnecessary care translates into high-cost, low-value treatment for our patients and the healthcare system. Incorporating evidence into practice is more likely when new findings align with provider’s clinical experience, multidisciplinary goals, stakeholder engagement at the level of professional communities, and support patient preferences and autonomy. As a surgical community, we are in continual pursuit to tailor treatment to our breast cancer patients while protecting them from unnecessary harm. Achieving these aims will likely require commitment and sustained effort to successfully tackle the facilitators of low-value cancer care and barriers to reducing its use.

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