Ann Surg Oncol (2022) 29:5361–5363
https://doi.org/10.1245/s10434-022-12021-1

Annals of
SURGICAL ONCOLOGY
OFFICIAL JOURNAL OF THE SOCIETY OF SURGICAL ONCOLOGY

EDITORIAL – BREAST ONCOLOGY

Editorial Comment on: One-Year Experience of Same-Day Mastectomy and Breast Reconstruction Protocol

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In response to the COVID-19 pandemic, the U.S. health system was forced to prioritize cost containment and thoughtful conservation of medical resources. Historically, women required hospital admission after mastectomy for monitoring, pain control, and education to prepare them for discharge; however, limited healthcare resources coupled with staff shortages and potential viral exposure rekindled interest in allowing post-mastectomy breast cancer patients to recover at home.

In this issue of the *Annals of Surgical Oncology*, Kelly and Specht et al. present observational findings from their quaternary care center of two well-matched breast cancer cohorts before and after the implementation of a same-day mastectomy discharge program. Study findings demonstrated that initiation of same-day discharge was not associated with higher rates of complications, yet was associated with reduced length of stay (24.6 vs 5.5 h; $p < 0.001$), postoperative narcotic use (69.1% vs 50.0%; $p < 0.001$), and downstream health system costs.[1] The authors reported no significant difference in the rate of reoperation or unplanned 30-day readmissions with early promise of positive patient experiences among the cohort of women in whom patient-reported outcomes were collected (n = 144). Notably, the 65.8% reduction in overnight admissions was associated with estimated net savings of $780,400 annually.[1] The authors acknowledged temporal differences between the historic and contemporary cohorts that may have impacted their findings including: COVID-related reductions in medically unnecessary care resulting in higher rates of unilateral versus bilateral mastectomy; a national increase in nipple-sparing mastectomies; and, recent increase in pre-pectoral implant placements which favored faster recovery. Among the modern cohort (March 2020–2021), approximately 70% of women after mastectomy were discharged home the same day. Findings from the included study support the authors' conclusion that a multidisciplinary and evidence based same-day mastectomy protocol is a safe and cost-effective alternative to conventional overnight admission.

Robust literature has demonstrated that enhanced recovery after surgery (ERAS) strategies allow for faster outpatient recovery, improved patient outcomes, reduced health system costs, and greater patient satisfaction.[2] More recently, this evidence based approach to surgical recovery has expanded beyond major abdominal surgery and has been shown to be effective in breast surgery with or without alloplastic reconstruction; tailored perioperative education and planning must address the unique needs of women with breast cancer.[3–5] Other authors have demonstrated the feasibility of same-day discharge after mastectomy without increased complication rates, emergency department return visits, or postoperative hospitalizations.[3,6]

Although single-institution experiences are critical to our collective knowledge of innovative care delivery, they may be limited by their lack of generalizability.[7–9] Homogeneous patient populations treated at well-resourced, high-volume centers fail to accurately represent the diverse population of women with breast cancer cared for across varied healthcare settings. For example, institutions differ in their use of regional anesthesia and rates of immediate breast reconstruction, while statewide

First Received: 27 May 2022
Accepted: 2 June 2022
Published Online: 14 July 2022

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availability of visiting home nurses influences programmatic success. Enhanced recovery pathways commonly employ regional block anesthesia and/or liposomal bupivacaine as part of multimodal pain control to reduce narcotic use, which can be costly and resource intensive, albeit highly beneficial for patients.[4,8,9] There is a paucity of large cohort studies examining recovery pathways that rely on readily available multimodal pain control (e.g., acetaminophen, gabapentin, and NSAIDS), more applicable to the general breast cancer population.[1,4,8,9]

Outpatient mastectomy became controversial in the mid-1990s, prompting legislative mandates that required payer coverage of post-mastectomy hospital admission. Decades later, there remains a notable gap in the literature addressing patient readiness for and experience with home recovery after mastectomy. Kelly and Specht et al. cited a "strong support system" among key eligibility criteria for same-day discharge; although important, this remains subjective, poorly characterized, and allows for introduction of provider bias. Small cohort studies suggest that major barriers to early discharge are lack of patient counseling and education. As national practices continue to evolve, additional research should focus on how social determinants of health might influence implementation of home recovery following mastectomy.[10,11] For example, optimal perioperative timing of patient education, frequency of patient counseling, and caregiver support are critical secondary outcomes for ongoing research. A 2015 meta-analysis by Waller et al. demonstrated the positive impact of patient preparedness on reducing anxiety and improving satisfaction among surgical oncology patients, including face-to-face, audio-visual, multi-media, and written educational interventions.[12] Implementation of complex protocols that create paradigm shifts in patient care require multidisciplinary participation and coordination and must include women with breast cancer as primary stakeholders. Notably, hospital admission after mastectomy should not be deemed a program failure nor linked to reimbursement or quality metrics, especially when women and their surgical team decide the best care includes an overnight stay.

In May 2022, the American Society of Breast Surgeons Patient Safety Quality Committee published evidence-based guidelines around home recovery after mastectomy, endorsing evolving national practices as a safe option in carefully selected patients when part of a comprehensive program; key components for success included: (i) infrastructure to support patient education; (ii) adequate management of postoperative nausea, vomiting, and pain control; and, (iii) after-hours access to medical care.[13] Recent data from the Healthcare Cost and Utilization Project (HCUP) have demonstrated that the rates of unilateral and bilateral mastectomies have increased by 2- and 5-fold, respectively, despite a stable incidence of breast cancer.[14] In the context of rising medical costs, healthcare over-use, and an aging population it is critical that the surgical oncology community engage in efficient utilization of healthcare resources. Home recovery after mastectomy protocols offer effective cost-saving strategies while maintaining safe postoperative care.

DISCLOSURE None.

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