# Opioid Overprescribing in Breast Cancer Surgery: An Australian Perspective

**Su Ang**
Breast Surgery, Chris O Brien Lifehouse, Macquarie University, Sydney, Australia

**Amanda Johns**
Breast Surgery, Chris O Brien Lifehouse, Macquarie University, Sydney, Australia

**Susannah Graham**
Breast Surgery, Chris O Brien Lifehouse, Macquarie University, Sydney, Australia

**Kenny Sze**
Breast Surgery, Chris O Brien Lifehouse, Macquarie University, Sydney, Australia

**Cindy Mak**
Breast Surgery, Chris O Brien Lifehouse, Macquarie University, Sydney, Australia

**Sanjay Warrier**
Breast Surgery, Chris O Brien Lifehouse, Macquarie University, Sydney, Australia

## Abstract

**Background:** Opioids are commonly prescribed for postoperative analgesia after breast cancer surgery, yet growing evidence links excess prescribing to prolonged use and harm in otherwise opioid-naïve survivors(1, 2). In Australia, prescribing at discharge varies widely and procedure-specific guidance for oncologic breast surgery is lacking(3). This study aimed to quantify the extent of opioid overprescribing at discharge among women undergoing curative breast cancer surgery in an Australian quaternary cancer centre.

**Methods:** We conducted a prospective observational cohort study of opioid-naïve adults undergoing unilateral breast cancer surgery between June 2021 and January 2023 at Chris O Brien Lifehouse in Sydney, NSW. Demographic, oncologic, surgical, and perioperative analgesic data were collected, and discharge opioid prescriptions were converted to oral morphine equivalent dose (oMEDD). Overprescribing was defined a priori as ≥ 50% of dispensed opioids remaining unused at postoperative day 7. Patients were followed by structured telephone interview on day 7 to determine opioid use, pain scores, and adverse effects.

**Results:** Thirty-three patients were included: 16 underwent wide local excision (WLE with or without sentinel node biopsy [SNB] and/or reconstruction) and 17 underwent mastectomy (with or without SNB and/or reconstruction). At day 7, 6 of 16 WLE patients (38%) reported no opioid use. Half of patients in the WLE + SNB (5/10) and WLE + SNB + reconstruction (3/6) groups had unused opioids at day 7, whereas 69% (10/14) of mastectomy + SNB patients had used > 50% of their prescription, rising to 86% (12/14) by day 28. Discharge prescriptions ranged from 37.5–300 mg oMEDD, with no clear relationship to procedure type or inpatient use. 50% of patients from both WLE groups had more than 50% leftover opioids at 7 days post op compared to 32% in the post mastectomy cohorts.

**Conclusion:** Postoperative opioids were frequently prescribed in excess of patient requirements, particularly after WLE, resulting in substantial unused medication. Several potentially modifiable factors may contribute to overprescribing. Discharge prescriptions are often written pre-emptively or during surgery to facilitate same day discharge are commonly completed by junior medical staff with limited formal education in postoperative pain management in addition to fear of undertreating pain and concern about patient complaints(4, 5). These findings support procedure-specific, data-informed prescribing to reduce unnecessary opioid exposure without compromising analgesia.