Background Postmastectomy breast reconstruction is an integral component of breast cancer treatment. It is often perceived that women in Asian countries have a lower rate of postmastectomy reconstruction than Western populations. This study describes trends in timing and types of breast reconstruction performed in the largest healthcare provider in Singapore, over a period of 12 years. It also reports on the oncological outcomes and surgical safety.

Methods A retrospective review of all patients who underwent postmastectomy reconstruction from January 2001 to December 2012 at the National Cancer Centre Singapore and Singapore General Hospital was performed.

Results 620 postmastectomy reconstructions were performed in 579 patients. The proportion of reconstructions increased from 4% in 2001 to 18% in 2012 (p<0.01). Younger patients (<50 years old) and those with early stage cancer were more likely to undergo reconstruction. Immediate breast reconstruction was favoured by more than 90% of patients. Although autologous tissue transfers were utilized for 87% of the reconstructions, there was a notable significant increase in implant reconstruction from 4% in the first 6 years to 18% in the later period (p<0.01). Post-operatively, 9% developed acute surgical complications that were treated surgically; 6% had additional surgery for late complications. Only 4% had delay of adjuvant chemotherapy. At median follow-up of 63 months (range 3-166), loco-regional recurrence was 4%, and distant metastases 8%.

Conclusion Postmastectomy reconstruction for breast cancer is increasingly performed in our institution. Both younger age and lower stage disease were associated with choice for reconstruction in our study. Low rates of delay to adjuvant therapy were noted, and it may safely be offered to suitable women undergoing mastectomy.