



The impact of COVID-19 on the surgical treatment of breast cancer (TICTOC): A population-based analysis

Gary Ko, Amanda Roberts, Qing Li, Ning Liu, Vivianne Freitas, Eitan Amir, Anne Koch, Toni Zhong, Antoine Eskander, Tulin D. Cil

What was the impact of the pandemic on the volumes of different types of breast cancer surgery at a population level?



37,214 Breast cancer patients



Pre-COVID: January 2018 to March 14, 2020
COVID: March 15, 2020 – June 13, 2020
Peri-COVID: June 14, 2020 – November 2021

Surgical Volumes



↓ 15.5%
in mean weekly BC surgeries

196.6	vs	166.2
Pre-COVID		COVID

$p=0.028$

Volumes returned to pre-COVID numbers by June 2021

Breast Cancer Surgery

↑ Proportion of patients undergoing mastectomy

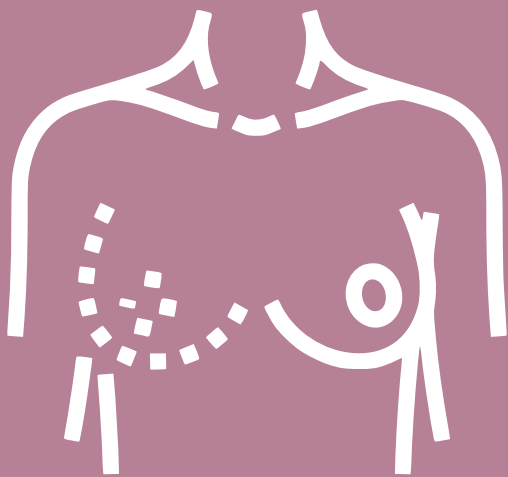
28.2%	vs	34.7%	vs	33.0%
Pre-COVID		COVID		Peri-COVID

$p < 0.001$



Immediate Breast Reconstruction

No significant decrease in the proportion of IBR during COVID



17.6%	vs	16.0%	$p = 0.286$
Pre-COVID		COVID	

Higher proportion of IBR during peri-COVID

17.6%	vs	21.9%	$p < 0.001$
Pre-COVID		Peri-COVID	

There was a significant decrease in breast cancer surgery during the COVID-19 pandemic. Mastectomies accounted for a higher proportion of surgeries performed in the pandemic periods.