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Value Based Payment Model in Oncology: The Experience of Developing Episode-Based Model for Breast Cancer in a Reference Cancer Center

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Introduction

- Cancer costs for public insurer in Chile reach USD 1.58M annually (Espinoza et al., 2022).
- The public insurance (FONASA) provides financial coverage for the most prevalent diseases including some types of cancer through Law 19.966 (GES-AUGE).
- When public services are unable to meet demand, patients are referred to private providers. The Arturo Lopez Perez Foundation has provided care using this modality to approximately 3000 patients since 2018.
- FONASA reimburses private providers through a mixed payment system (baskets of health services and fee for service).
- Patient care often becomes fragmented, since there is no incentives in place for continuity of care or improved health outcomes.
- The GES-AUGE reimburses breast reconstruction, but there are no set timeframe for completing this procedure. Hence, women are waiting for reconstruction (SENADO CHILE, 2024).
- Here, we present the development of a new reimbursement model aiming to address the challenges above based on the current available evidence and our breast cancer clinical pathways (BCCP).

Methods

- We conducted a literature review on the impact of reimbursement models on cancer care from January 2014 to December 2024.
- Based on our findings, we selected a bundled payment model for local testing and assessed its feasibility using the BCCP (Figure 1).
- Historical patient data was analyzed to identify the different breast reconstruction pathways, estimate the expected costs, and develop episodes that factor in continuity of care.

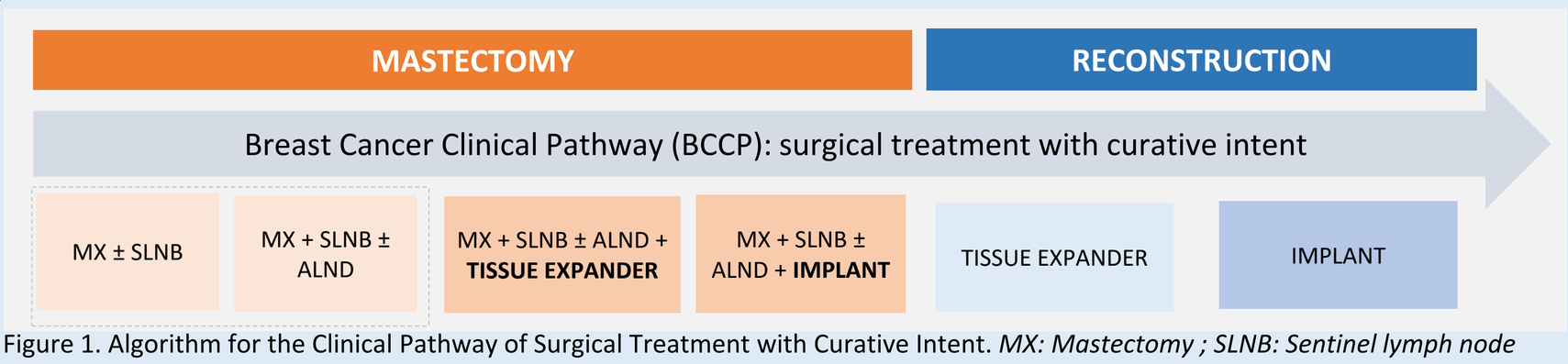

Figure 1. Algorithm for the Clinical Pathway of Surgical Treatment with Curative Intent. *MX: Mastectomy ; SLNB: Sentinel lymph node biopsy; ALND: Axillary lymph node dissection. Boxes framed with a dotted line illustrate alternatives.*

Results

- Key characteristics of the main payment models assessed in our body of evidence are highlighted in Figure 2.
- A group of 1675 patients who underwent surgery between 2022 and 2023 was analyzed.
- Three potential episodes for a bundled payment model for breast cancer reconstruction are illustrated in Figure 3. The payment incentives should assure an explicit timeframe to complete the reconstruction.

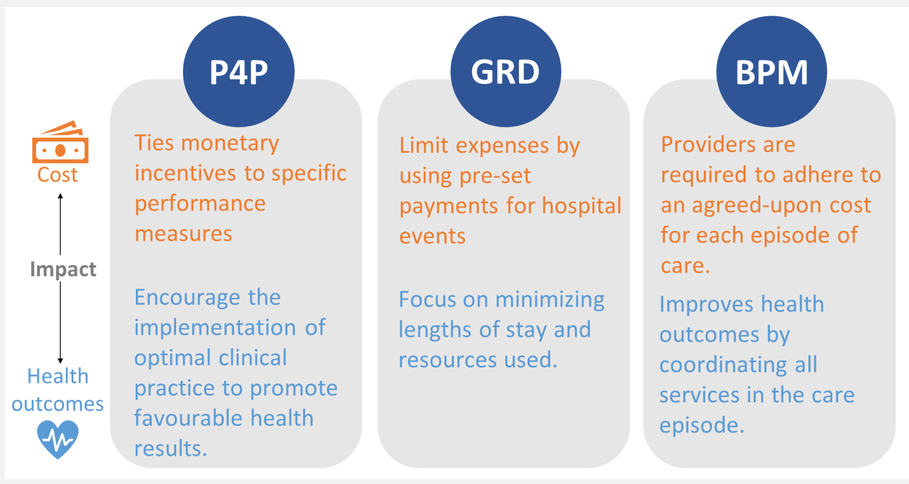

Figure 2. Reimbursement models in oncology care. *P4P: Pay-for-Performance;DRG: Diagnosis-related group; BPM: Bundled Payments Models*

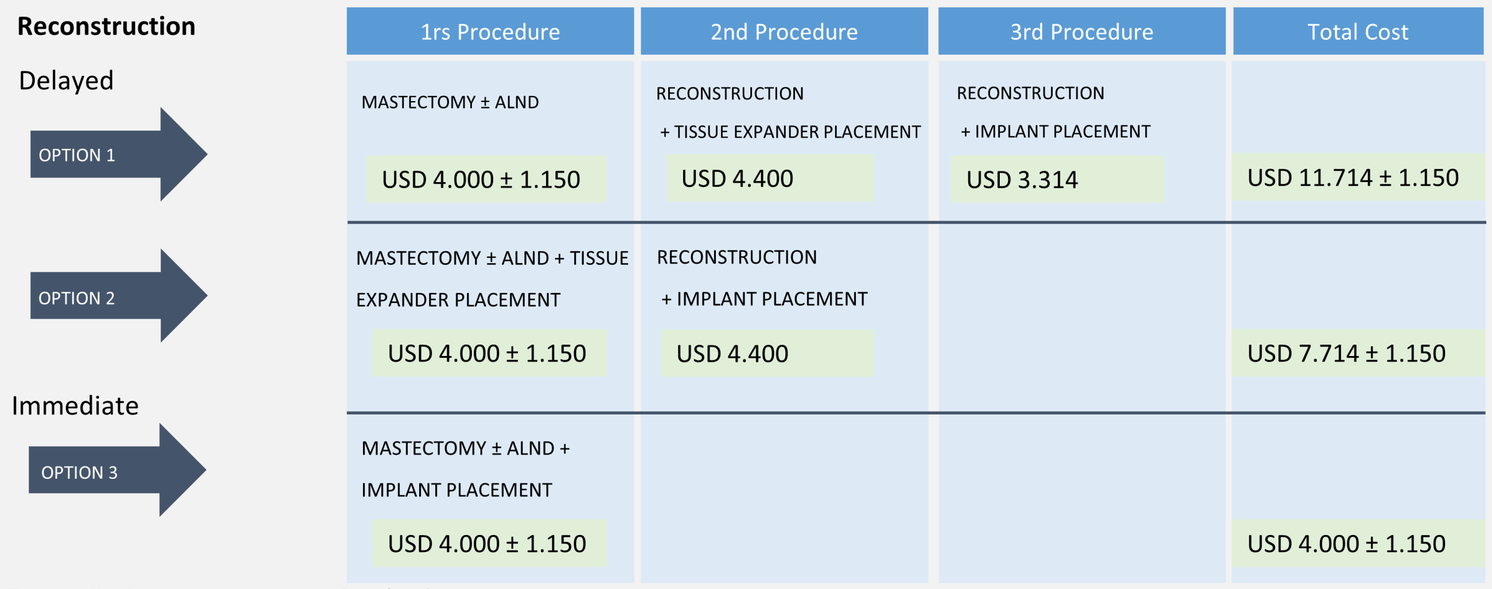

Figure 3. Cost across episodes for breast cancer reconstruction

Patients undergoing breast cancer surgery may face additional costs. These variations can impact the total costs of the episode. These variations include:

	Cost variation (USD)	
Meshes	$ 1.600	$ 2.286
Mammaplasty (reduction/augmentation)	$ 800	$ 914
Mastopexy	$ 823	
Bilateral breast reconstruction	$ 800	
Flaps	$ 629	$ 1.943

Conclusions & Next Steps

- We have estimated the expected costs of three episodes in the breast cancer surgical reconstruction pathway. The payment system for each of them should explicitly state the timeframe for completing the reconstruction to achieve the desired outcomes.
- The BCCP serves as a tool to guide investigation in identifying value-driven interventions aimed to improve coordinated care, and correspondingly, patient outcomes. In this context, the BPM achieves the intended goal.
- Further work should focus on developing a health and cost indicator system, along with a follow-up process to track outcomes.
- Integrating other elements of the reconstruction pathway, such as the preoperative period, follow-up care, and the costs of potential adjuvant therapy, will ensure continuity of care and optimize the treatment process.

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