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TAVR Reimbursement and Cost Analysis in Chile: Input Data for Improving the DRG System in Chile.



Background:

- In 2020, Chile implemented a Diagnosis-Related Groups (DRG) payment reform. However, the system imported international sources of DRG weights instead of estimating local costs.
- Thus, there is a need to understand if the current DRG weights accurately represent the local costs of Chilean public providers. This is particularly necessary in procedures requiring high-cost medical devices.
- **The Transcatheter Aortic Valve Replacement (TARV) for Aortic Stenosis (AS) has been described as a critical case.**

Objectives: To estimate the gap between the current TAVR reimbursement rate and costs from public high-complexity providers.

Methods:

DRG proceedings:
The reimbursement rate was estimated using open-access DRG databases from high-complexity public providers belonging to the DRG Program.
Data on: DRG coding, DRG weights, basal reimbursement, and add-on payment amounts were collected.
The tracked procedure was 35.5 Endovascular replacement of aortic valve (ICD-9-CM Vol. 3 Procedure Codes).
DRG base price was estimated considering 65 hospital rates, their classification according to complexity, relative weight of each, and distribution, resulting in a mean base price of CLP\$2,184,664.

Cost proceedings:
An activity-based costing approach and a bottom-up strategy were used to estimate local provider costs.
DRG registries were used to determine bed days for critical and non-critical beds, and procedure rates, when possible.
Costs were categorized to explore significant cost drivers. Estimations were made on a per-patient (PP) basis, considering cases without complications. All costs are expressed in 2022 Chilean pesos (CLP).

Results:

The **average DRG TAVR payment** (irrespective of AE severity and severity distribution) was **CLP\$23,138,514**. This cost considers a baseline DRG payment of CLP\$4,602,504 plus an **additional add-on payment of CLP\$18,536,010 when code 35.05 was approved**.
The **average local cost for providers on** a PP basis without complications, was estimated at **CLP\$20,353,312**.

When complications are not considered, the gap between full reimbursement and costs for the intraoperative period was CLP\$2,785,202 (12.04%) (positive margin for providers).

Costs drivers and their relative weight:

	0.30%	Lab work and scans
	0.86%	Bed-days
	0.97%	Drugs and post-procedure care

	1.54%	Medical team costs
	9.22%	OR supplies
	87.12%	TAVR device

Conclusion:

With the inclusion of an add-on payment for TAVR in AE, the gap between DRG average reimbursement and procedure costs diminished in non-complicated patients. However, the reimbursement rate versus current costs balance is delicate as it relies on best-case scenarios.

