

IS EVERY PERIPHERAL CATHETER THE SAME? ECONOMIC BURDEN AND BUDGET IMPACT OF ACCIDENTS AND PHLEBITIS IN PERIPHERAL VENOUS ACCESS ACCORDING TO CATHETER MATERIAL AND SAFETY DEVICE

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OBJECTIVES

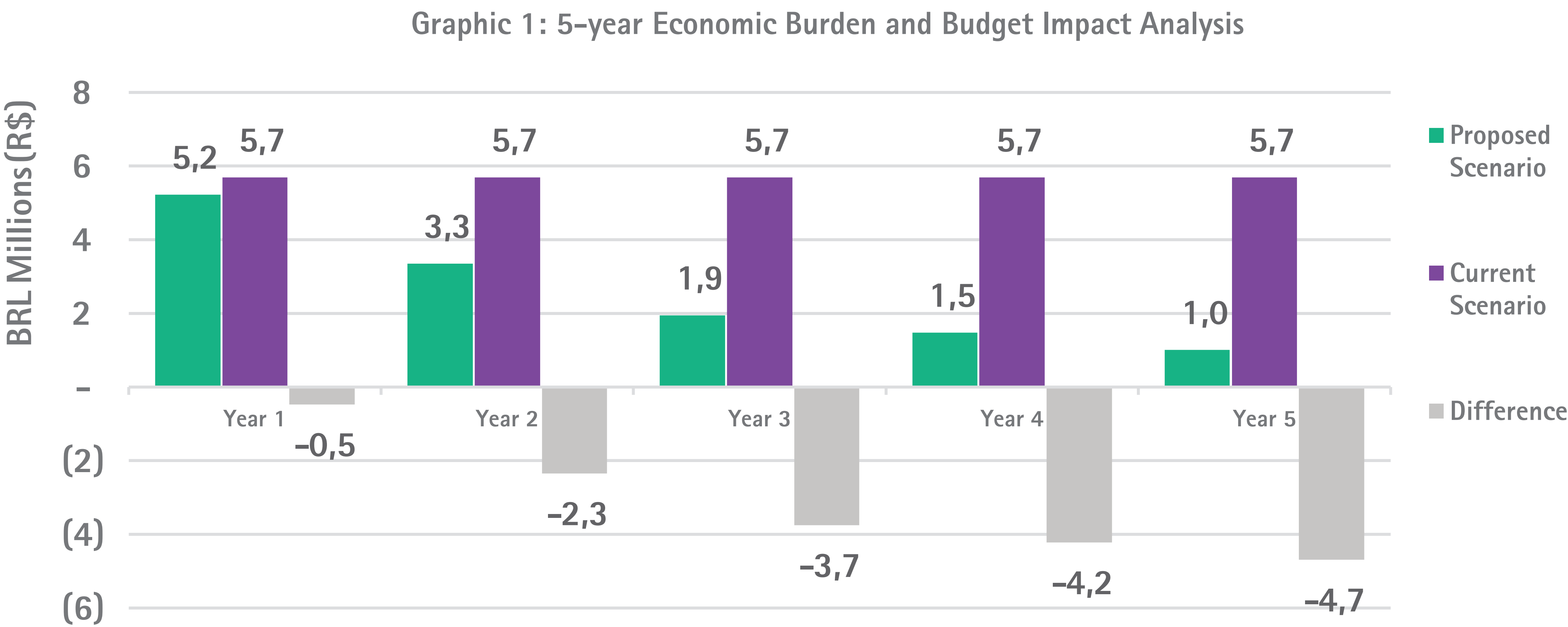
To analyze the **annual costs of treating phlebitis and catheter-related needle stick injuries, according to the material (Polyurethane vs. Teflon)** and the **presence of a safety device**.

METHODS

Cost assessment of treatment (**R\$ 7**)¹ and **probabilities of phlebitis** (16.3% for polyurethane catheters, 53.8% for Teflon catheters)² and **prevalence of needle stick injuries** (1/10,000 professionals for catheters with a safety device and 12.5/10,000 for catheters without a safety device; R\$ 4,309 per event)^{3,4}. Calculations were performed for a **scenario of 600,000 catheters/year**. A **budget impact analysis** was conducted over a **5-year horizon**, with a **gradual market share** for polyurethane catheters with a safety device of 10% in the first year, 50% in the second, 80% in the third, 90% in the fourth, and 100% in the fifth year. The **payer's perspective** was considered.

RESULTS

The analysis showed a **reduction** of R\$ 1,712,250 (**-70%**) in **phlebitis treatment costs** with the use of **polyurethane catheters** (R\$ 744,258 vs. R\$ 2,456,508) and a reduction of R\$ 2,973,410 (**-92%**) in **treatment costs after needle stick injuries** with the use of **catheters with a safety device** (R\$ 258,557 vs. R\$ 3,231,967). Considering the budget impact, the **gradual introduction of polyurethane catheters with a safety device** already promotes **cost reduction from the first year** (-R\$ 468,566), reaching over **R\$ 15 million in 5 years**.



CONCLUSION

The use of **polyurethane peripheral venous catheters with a safety device** has the **potential to reduce the frequency of events and costs associated with phlebitis and needle stick injuries** by nearly 5 million in one year (**82% lower costs**), achieving **savings of over R\$15 million in 5 years**, aligning with **patient and professional safety and economic sustainability**.

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