The Effectiveness of Ontario's Generic Pricing Polices for Intravenous Chemotherapy

Rohini Naipaul, Jaclyn Beca, Scott Gavura

PROVINCIAL DRUG REIMBURSEMENT PROGRAMS, CANCER CARE ONTARIO

BACKGROUND

- In Ontario, the New Drug Funding Program (**NDFP**) funds intravenous (IV) cancer drugs *(46 in 17/18)* for outpatient hospital use.
- The Ministry of Health and Long-Term Care approves the funding criteria and products (brand or generic) listed on the formulary.
- The NDFP directly reimburses hospitals at a fixed cost per unit rate (usually $/mg) for doses administered.
- The NDFP reimbursement price is set at the best available price (BAP) in the province.

NDFP's Generic Pricing Model for IV Cancer Drugs

Bulk Purchasing
- Ontario hospitals purchase most drugs, including NDFP-funded drugs, through one of two group purchasing organizations (GPOs).

Price Disclosure
- Generic manufacturers must disclose all purchasing contracts with GPOs or hospitals.
- CCO confirms new prices obtained through GPO tendering.

Competitive Tendering
- Both brand and generic manufacturers may compete for GPO contracts.
- CCO leverages existing GPO tendering. Both GPOs provide CCO with their lowest price and CCO identifies the BAP.
- CCO will reimburse any approved product (brand or generic) at a rate that does not exceed the BAP.

Dynamic Pricing
- The NDFP reimbursement price changes whenever a new BAP is identified in the province.
- GPOs are notified of BAP changes, which may trigger re-tendering of existing purchasing contracts.

OBJECTIVE

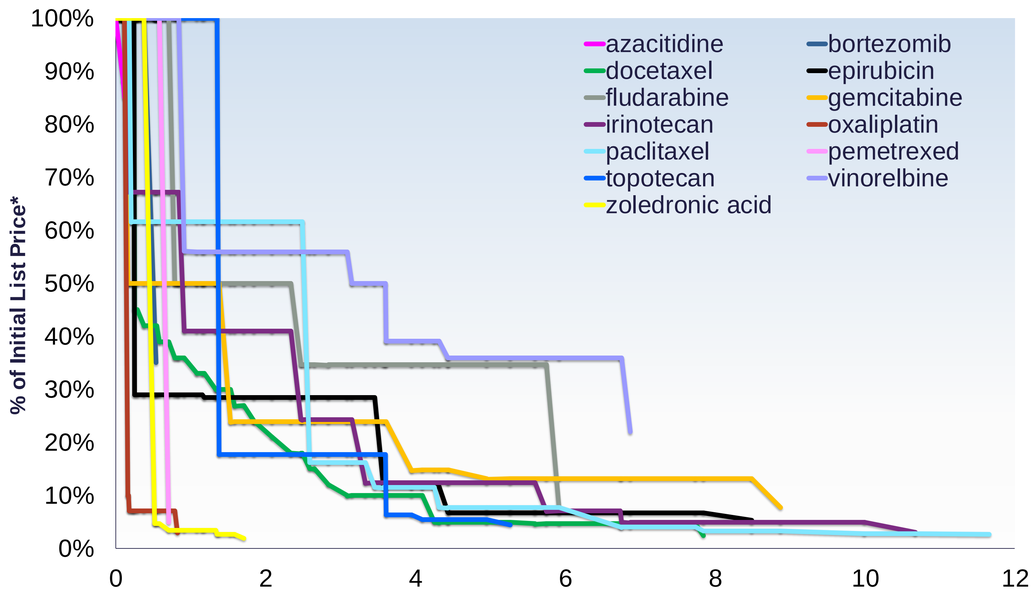
To evaluate the effectiveness of CCO's generic pricing strategy, by examining price reductions over time and associated cost savings for NDFP-funded IV cancer drugs.

APPROACH

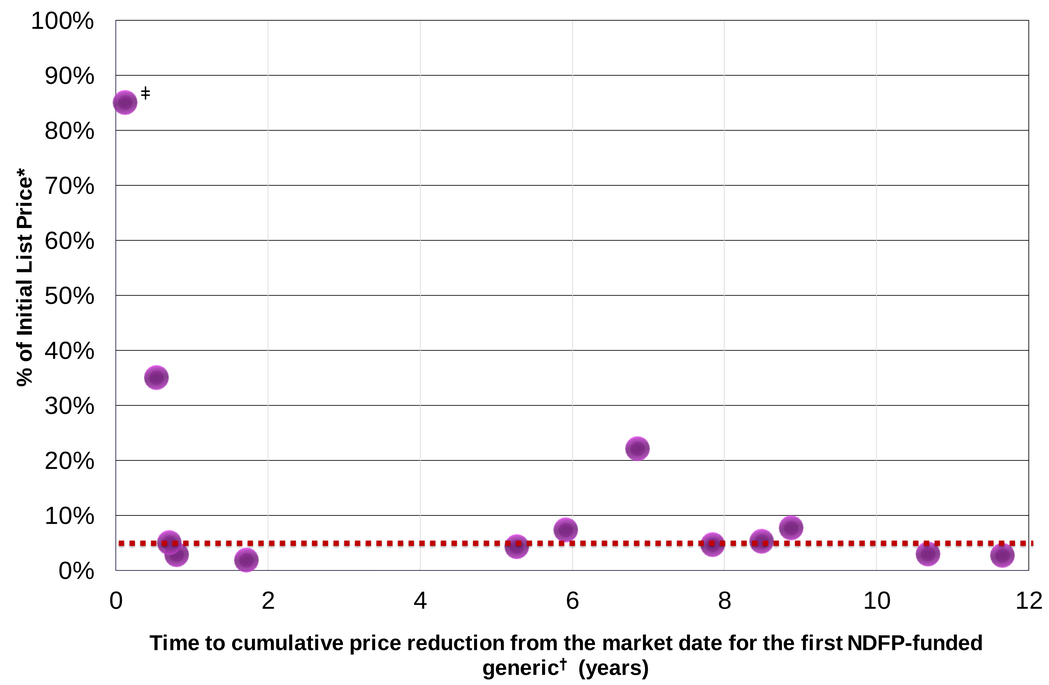
Drugs Included	• Drugs listed on the NDFP formulary, from 2004 to 2018, which had generic equivalents on the Canadian market by December 31, 2018. • **13** drugs included: ➢ Average time on formulary = 17 years (range, 8.6 to 23.8) ➢ Accounts for **51.6% of claims** and **7.4% of program spending** in the 17/18 fiscal year
Initial Price Reduction	• Difference between initial (or pre-generic)* list price in 2004 and the first price change occurring after the first NDFP-funded generic is available on the Canadian market.†
Cumulative Price Reduction	• Difference between initial (or pre-generic)* list price in 2004 and the last price change reported by December 31, 2018.
Time to Price Reduction	• Time for price change to occur (in years) after the first generic equivalent (to the NDFP-funded reference product) is marketed by Health Canada.† • "Original market date" sourced from Health Canada's Drug Product Database.
Potential Cost Savings	• Calculated the projected costs, without any discounts, based on the cumulative dose ("mg") claimed in 17/18 and the initial (or pre-generic)* list price. • Compared projected to actual NDFP costs in 17/18. • Costs and use data sourced from the NDFP database (extracted 16 Jan 2019).

RESULTS

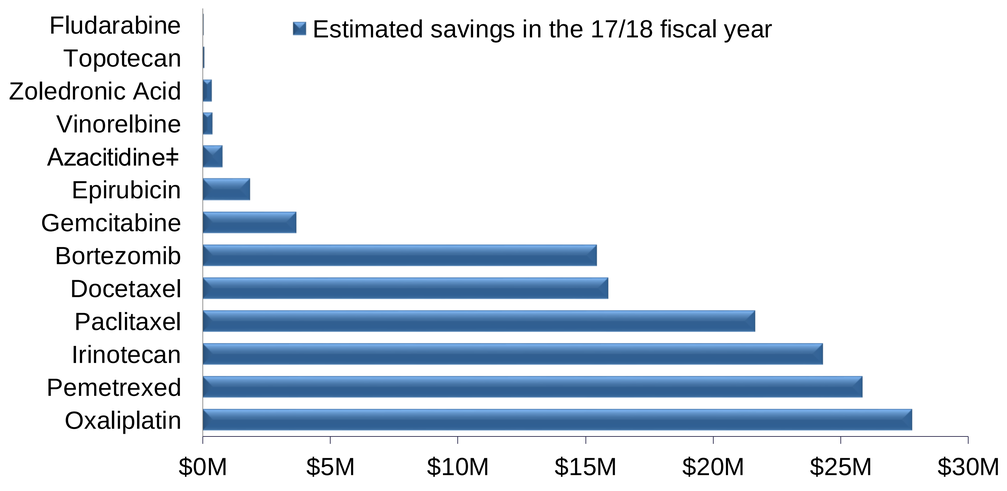
At the first price reduction, NDFP list prices for IV cancer drugs *(with generic equivalents)* **were, on average, 40% of the initial list price but significantly decreased over time.**



By the end of 2018, NDFP list prices for the *majority* of IV cancer drugs *(with generic equivalents)* **were, on average, <u>5% of the initial list price</u>*.**



Based on 17/18 utilization volumes, the NDFP generic pricing model delivered an estimated $138 million in savings.



DISCUSSION

- With the growing demand for public payers to fund new and expensive cancer medicines, generic pricing strategies are paramount to alleviate budget pressures.
- Prior to 2004, CCO managed its own tendering process. For program efficiency, the program switched to leveraging existing hospital GPO tendering processes
- In 2014, we reported that this model was effective and offered substantial price reductions over time.[1] As of 2018, this model continues to be effective :
  - ❖ On average, NDFP initial list prices were discounted by 60% (range, 12% to 95%) by 0.5 years (range, 0.1 to 1.4) after the first NDFP-funded generic was marketed.†
  - ❖ On average, NDFP initial list prices were discounted by 86% by 5.3 years (range, 0.1 to 11.7) after the first NDFP-funded generic was marketed.†
  - ❖ For the majority of drugs (10/13), the average list price was 5% of the initial list price (range, 2% to 8%) by 6.2 years (range, 0.7 to 11.7) after the first NDFP-funded generic was marketed. †
  - ❖ In 2014, we reported an estimated savings of $68 million.[1] By 2018, four additional formulary drugs had generic equivalents and the estimated savings increased to $138 million.
- In the CCO model, all manufacturers (regardless of the number of marketed generics) must compete for hospital contracts. Manufacturers who do not participate in GPO tendering processes are effectively excluded from the entire Ontario hospital market.
- In some cases, brand manufacturers proactively and progressively dropped their prices (lowering the BAP) prior to the market appearance of generic drugs (e.g., docetaxel, pemetrexed).
- Limitations to this model include the inability to predict the timing and extent of price changes. However the approach allows reimbursement pricing to be responsive to market pressure, which may mitigate concerns about price-caps and manufacturer willingness to supply the market.

LIMITATIONS

- This is an analysis of hospital-administered cancer drugs in a province with two GPOs. The applicability to other settings would require further analysis.
- A small data set limits a more rigorous analysis of the impact of multiple generics on price, and the timing of price-reductions.

CONCLUSIONS

Based on this updated analysis to 2018, CCO's generic drug pricing policies continues to deliver substantial price reductions for generic drugs.

[1]Naipaul R, Beca J, Gavura S. No ceiling, no floor: evaluating the effectiveness of a generic cancer drug reimbursement framework. J Popul Ther Clin Pharmacol. 2015; 22(3):e251-e284.

*In most cases the initial list price in 2004 for the brand product was used for comparison. The pre-generic list price was used for oxaliplatin, bortezomib, and zoledronic acid where NDFP prices increased prior to the first generic entry.
†NDFP has yet to fund a generic equivalent for pemetrexed. Time to price changes were calculated using the date for the first Health Canada approved generic (i.e., Notice of Compliance date for the Hospira product).
‡The generic equivalent for azacitidine was marketed in 2017 where the NDFP list price was reduced by 15% by the end of 2018. Further price reductions occurred in January 2019 but are not reflected here.