

Stumbling Upon the Black Gorilla: A Lucky Break in Overcoming Healthcare Financing Barriers with AI - A Case Study on Transfusion Funding in Slovenia

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Introduction

Accurate information is critical for equitable and efficient healthcare financing, yet accessing it remains a challenge. This paper explores the role of Artificial Intelligence (AI), particularly conversational agents like ChatGPT, in overcoming barriers to obtaining and validating healthcare financing data. Using Slovenia's transfusion funding policy change as an example, the study highlights how crucial information—despite being readily available—was only accessed after direct inquiry with the creators of the Australian Diagnosis Related Groups (DRG) system. This case underscores the complexity of healthcare financing and inefficiencies in information dissemination.

Methods

This policy update study analyzed transfusion service financing in:

- * Slovenia, where hospitals bear transfusion costs.
- * Australia, where the National Blood Transfusion Service (NBTS) is fully government-funded.

Data sources:

- * 2021/2022 financial data, comparing costs and funding structures.
- * General ledger review, analyzing transactions and blood product consumption at University Medical Center (UKC) Ljubljana.
- * Expert input mainly from Australia, including added perspectives from Germany and Ireland.
- * AI-assisted analysis, with ChatGPT supporting data interpretation and insight generation.

Results

In Australia, transfusion services are fully government-funded, with separate financing for immunoglobulins and other therapeutic blood products. In contrast, Slovenian hospitals bear direct costs, leading to financial strain and instability.

Key findings included:

- * Financial burden: Hospitals face unpredictable and high costs for transfusion services.
- * Lack of transparency: Monopolistic price setting and vested interests have driven up costs, limiting competition and reducing accountability in transfusion financing.
- * Missed policy solutions: Instead of adhering to the originally adopted DRG-based financing model, the payer introduced retrospective coding rule changes, perpetuating inconsistencies in transfusion funding and financial inefficiencies.

As a result, we proposed:

- * Centralized funding to relieve hospital financial burdens.
- * Regulated pricing to ensure fairness and transparency.
- * Stronger oversight to prevent past irregularities, such as retroactive rule changes and inflated pricing.

These recommendations have since been partially implemented, signaling a shift toward a more sustainable model.

Discussion/Conclusions

AI enables precise queries, bridges communication gaps, and provides critical insights into complex healthcare financing issues. The Slovenian case illustrates how AI could streamline decision-making and resource allocation. More broadly, AI's role in healthcare financing can improve equity, efficiency, and international collaboration. Adding a playful yet meaningful layer, the paper acknowledges Don Hindle, a key figure in Australian DRG development, as a 'shadow' third author. This tribute highlights the lasting influence of expert knowledge in modern healthcare financing challenges-capturing the dynamic dance of interaction between human wisdom and AI.

Ultimately, AI emerges as an essential tool in navigating healthcare financing complexities, driving more informed and equitable policy decisions.

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