



Examining the practicality of current procedural terminology(CPT) standard codes for privacy of patients.

Case study: Rwanda Military Referral and Teaching Hospital and Legacy clinics.



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Abstract

Objective

To examine a level to which Current procedural terminology standards codes utilized to protect privacy and confidentiality.

METHODS

Descriptive research design that employed quantitative approaches was used. data analysis were conducted using microsoft excel ,power Bi and STATA software.

Results

Of 94.59% of respondents reported non-usage, indicating substantial barriers such as lack of awareness, inadequate training, and systemic challenges. Logistic regression analysis highlights that knowledge about CPT negatively impacts its usage, suggesting that awareness alone is not enough to increase adoption.

Conclusion

CPT adoption remains low across surveyed healthcare facilities, with substantial barriers hindering its implementation, particularly at RMRTH. To promote CPT integration, healthcare institutions need targeted interventions, improved awareness, and comprehensive training programs to ensure successful adoption.

Introduction

Current Procedural Terminology (CPT) codes serve as a universal language facilitating the documentation and billing of medical procedures and services. However, alongside the undeniable benefits of CPT coding, there arises a pressing concern regarding the privacy of patients. As healthcare providers navigate the intricate landscape of medical coding, they must balance the practicality of CPT standards with the imperative to safeguard patient confidentiality.

the implementation of CPT codes offers a streamlined approach to recording and reporting medical procedures across diverse healthcare settings. Developed and maintained by the American Medical Association (AMA), CPT codes provide a standardized framework for describing medical, surgical, and diagnostic services

In Rwanda, no study yet was conducted about implementation of current procedural terminology standards codes usability for protecting privacy of patients. This brought my interest to examine practicality of Current procedural terminology standards codes for privacy of patients at Rwanda Military Referral and Teaching Hospital and Legacy clinics as public teaching hospital and legacy clinics as private clinic which have accredited and standardized laboratories to examine standards in terms of privacy.

Study subjects

Medical doctors, in different specialties, Insurance partners, Teller staff who access patients data in billing process and Information technology officers officers staff at study sites of Rwanda Military referral and teaching hospital and legacy clinics who accepted to participate in the study contributed .

Methodology

Study setting: Rwanda Military Referral and Teaching hospital and legacy clinics

Study design: Cross-sectional quantitative study approach.

Study population: Medical doctors, in different specialties, Insurance partners, Teller staff

Sample size:177 participants
Sampling strategy: stratified purposive sampling technique

Instrument for data collection: The data capture kobo tool box was administered to the study subjects to respond to questions. The survey instrument was designed to quantify perception, current data methods of patients data protection and challenges to CPT implementation.

Data management: The data were organized in Microsoft excel and visualization were conducted in power Bi along with STATA software version 15 for data imputation and descriptive statistics and logistic regression for inferential statistics .

Results

Figure 1: Distribution of Health facilities

The distribution of participants across health facilities shows a significant concentration at RMH (Rwanda Military Hospital), with 75.68% of the respondents associated with this facility. In contrast, Legacy Clinics account for only 24.32% of the participants.

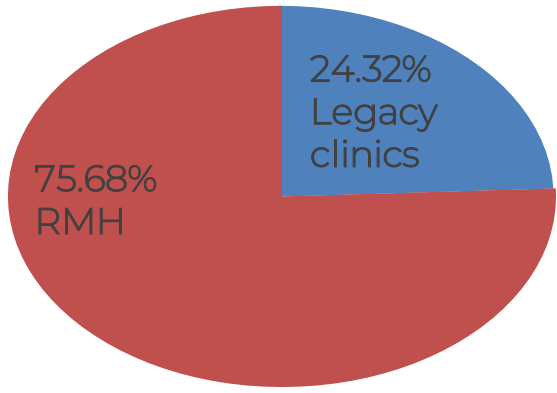


Figure 2: Distribution of CPT usability in hospitals

a significant majority of participants, 94.59%, do not use CPT, reflecting a widespread absence of CPT implementation among the respondents. In contrast, only 5.41% of the participants report using CPT, highlighting its limited adoption.

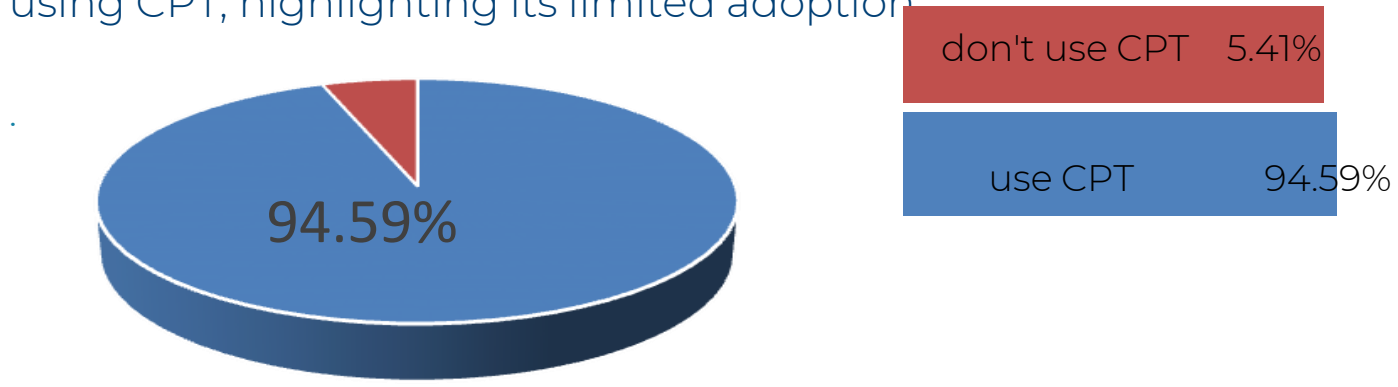
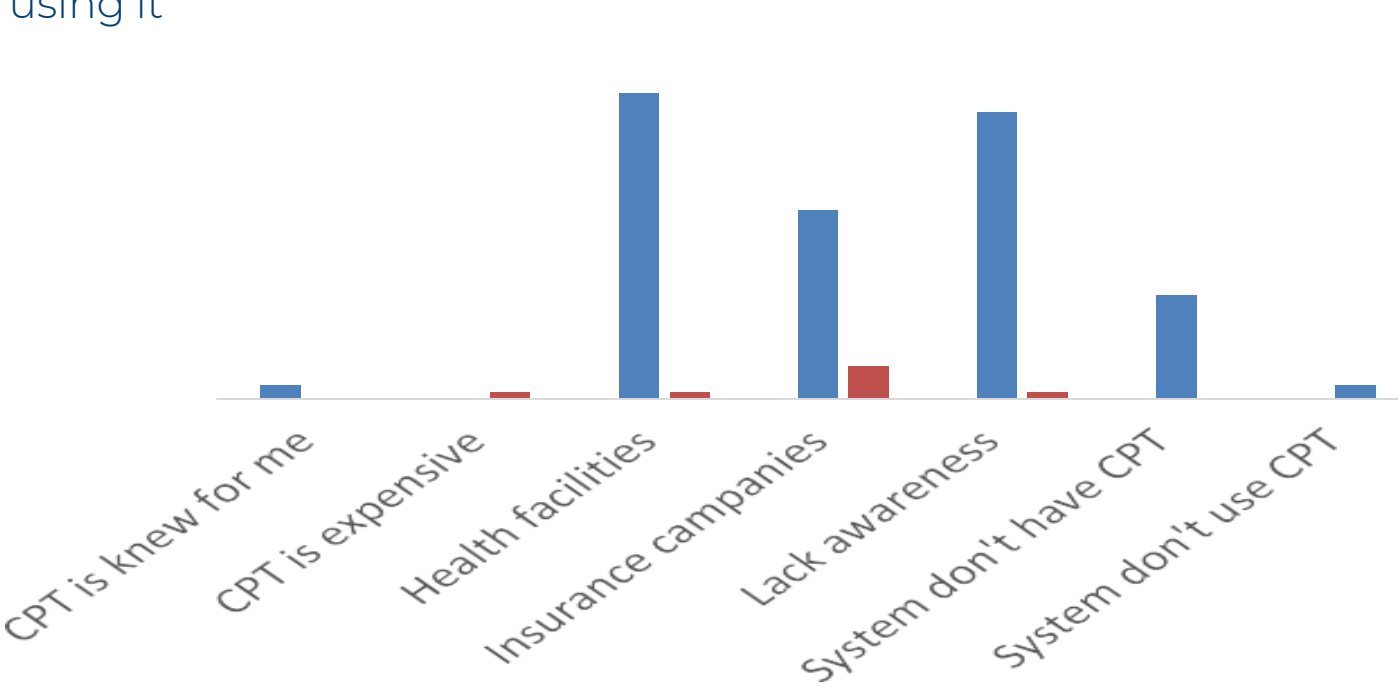


Figure 3: Distribution of CPT limiting usage for CPT

The grey used to use CPT while blue never . Among 29.73% of participants identified a lack of awareness as a major challenge, while 31.76% cited issues related to health facilities. Additionally, 19.59% of respondents pointed to challenges with insurance companies. The data also indicates that 10.81% of participants face issues because the system does not have CPT integrated, and 1.35% encounter problems with systems that do not use CPT. **The logistic regression** analysis in the above table indicates that knowledge about CPT has a significant negative effect on CPT usage with a coefficient of -1.4889 (p = 0.004), suggesting that knowledge about CPT is associated with a lower likelihood of using it



Conclusion

The analysis shows that Current Procedural Terminology (CPT) usage is notably low across the surveyed health facilities, with Legacy Clinics demonstrating significantly higher adoption compared to Rwanda Military Hospital (RMH), where no CPT usage is reported

The findings also highlight that occupational roles do not significantly influence CPT usage, suggesting that factors beyond professional backgrounds, such as facility-specific issues and systemic integration, play a more critical role. Logistic regression analysis shows that knowledge about CPT, and insurance limit use of CPT.

Recommendations

To enhance the adoption and effective utilization of Current Procedural Terminology (CPT) codes, it is crucial to focus on increasing awareness and training for healthcare professionals and insurance organs.

Upgrading healthcare facilities' systems to support CPT, allocating necessary resources, and ensuring CPT codes are incorporated into existing workflows can help overcome these barriers.

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Further Information

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