

TITLE: A Comparative Analysis of Case-mix and Hospital Tariff for Spontaneous Vaginal Delivery and Lower Segment Caesarean Section Cases in Three Different Types of Hospitals in Indonesia.

Introduction

The Indonesian Case Base Groups (INA-CBG) is a system used in Indonesia for classifying and reimbursing healthcare service based on diagnosis-related groups (DRGs). However, the discrepancies between INA-CBG tariff and hospital tariff have raised concern among the hospital management. This study aims to determine the discrepancies between the INA-CBG and hospital tariff for spontaneous vaginal delivery (SVD) and lower segment caesarean section (LSCS) cases.

Methods

A cross-sectional study was conducted using the secondary data from three different hospitals in Surabaya, Indonesia. Data on the INA-CBG tariff, hospital tariff and cost components for each case-mix severity level for SVD and LSCS cases for year 2022 were collected. Descriptive and analytical analysis were done on the type of severity level, cost components and class for both cases. The final hospital tariff was then compared with the INA-CBG tariff for the respective hospital.

Results

There were about 643 (severity level I=473, II=162, III-8) and 771 (severity level I=358, II=411, III-2) SVD and LSCS cases respectively in a public university hospital (PUH), followed by 415 (severity level I=110, II=278, III-27) and 192 (severity level I=26, II=163, III-3) SVD and LSCS cases respectively in a public state hospital (PSH) and 95 (severity level I=88, II=6, III-1) and 28 (severity level I=24, level II=4) SVD and LSCS cases respectively in a private hospital (PrH).

For SVD cases, the average discrepancies between hospital tariff and INA-CBG tariff recorded for PrH was 32.55 % (severity level I=30.06%, II=52.08%, III-20.47%), for PUH was 76.67% (severity level I=78.76%, II=79.36%, III-77.51%), and for PSH was 70.57% (severity level I=76.02%, II=75.88%, III-59.81%). Similarly, huge discrepancies were also observed for LSCS cases. The average discrepancies between hospital tariff and INA-CBG tariff for PrH was 54.52% (severity level I=53.68%, II=57.02%), for PUH was 79.61% (severity level I=79.00%, II=77.46%, III-87.88%), and for PSH was 66.36% (severity level I=62.76%, II=64.96%, III-73.95%).

In all three hospitals, the main cost component for SVD cases for severity level I and II were surgical procedures while for severity level III it was mainly contributed by the cost for medications. However, for LSCS cases, the main cost component recorded were different from each hospital. For PrH, the main cost component was services for both severity level I and II. While for PUH and PSH, the main cost component was surgical procedure and non-surgical procedure respectively for all severity levels.

Discussion

In this study, huge discrepancies between hospital tariff and INA-CBG tariff were recorded for both SVD and LSCS cases for all severity levels in all three hospitals. Compared to the public university and state hospitals, the discrepancies recorded by the private hospital were the lowest. This was because the private hospital had performed the costing calculations exercise in determining their hospital tariff for both cases. In addition, different cost drivers were also recorded for LSCS cases for all three hospitals possibly due to different terms and definitions used to define cost components recorded for each hospital. In conclusion, costing calculations exercise should be conducted and revised to ensure that the discrepancies between hospital tariff and INA-CBG tariff were not markedly difference.