Improving the Percentage of Appropriate Chemoprophylaxis Duration in Lower Segment Caesarean Section Surgery (LSCS) Performed by Obstetrics and Gynaecology Department Hospital Melaka

QLL 126

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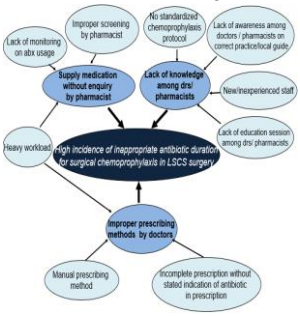
1 Selection of Opportunities for Improvement

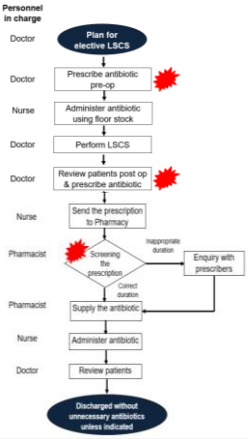
1.1 Introduction

Inappropriate surgical chemoprophylaxis duration will lead to antimicrobial resistance and increase unnecessary treatment costs. From the surgical prophylaxis audit conducted in the year 2023, 97.8% of LSCS performed in Hospital Melaka were prescribed with prolonged antibiotic duration.

1.2 Cause-effect analysis



1.3 Process of care



1.4 Model of good care

No	Process	Criteria of good care	Ideal	Standard
1.	Prescribing pre-op antibiotic	Prescribe in drug chart and administer to patient within 1 hour prior first incision using floor stock	100%	100%
2.	Review patients post LSCS and prescribe antibiotic	Prescribe in drug chart with correct dose, frequency & duration	100%	70%
3.	Medication are supplied by the pharmacists	Pharmacists screen the prescription & supply antibiotic accordingly	100%	70%

2 Key Measure for Improvement

The indicator was the percentage of correct chemoprophylaxis duration in LSCS as below:

$$\frac{\text{Number of prescriptions with correct antibiotic duration}}{\text{Total number of prescriptions prescribed for LSCS surgery}} \times 100\%$$

Standard set:

≥70% of surgical chemoprophylaxis prescriptions for LSCS are prescribed with the correct duration

3 Process of Gathering Information

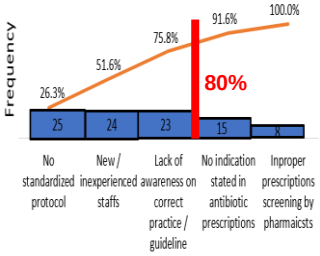
Study design	Cross-sectional study
Study duration	1 year
Inclusion criteria	All elective LSCS surgery performed in Hosp Melaka
Exclusion criteria	Patients who already on antibiotic treatment prior operation / developed surgical site infection (SSI)
Data collection	• Data collection form • to collect data from case sheets & drug chart

4 Analysis & Interpretation

A verification study was carried out in February 2023 and the result as below:

No	Process	Criteria of good care	Standard	Verification (N=46)
1.	Prescribing pre-op antibiotic	Prescribe in drug chart and administer to patient within 1 hour prior first incision using floor stock	100%	100%
2.	Review patients post LSCS and prescribe antibiotic	Prescribe in drug chart with correct dose, frequency & duration	70%	2.2%
3.	Medication are supplied by the pharmacists	Pharmacists screen the prescription & supply antibiotic accordingly	70%	2.2%

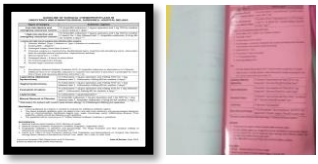
Contribution factors to inappropriate surgical chemoprophylaxis duration in LSCS surgeries



5 Strategies for Change

Strategy 1: Formulate a local protocol on LSCS chemoprophylaxis

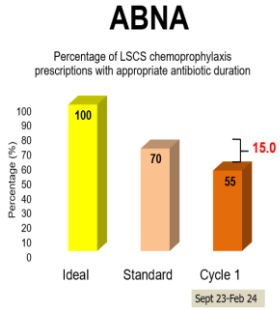
Strategy 2: To create a reminder system regarding local protocol (protocol was attached to every drug chart in O&G wards).



Strategy 3: Shared the local LSCS chemoprophylaxis protocol with all pharmacists so that they can intervene when receiving respective prescriptions that are not following guidelines.

Strategy 4: CME session regarding chemoprophylaxis was carried out in the O&G department.

6 Effect of Changes



7 The Next Step

Second cycle of survey and planning for other strategy is required to achieve the standard of 70% correct LSCS chemoprophylaxis duration in Hospital Melaka.

References

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