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## 1. SELECTION OF OPPORTUNITIES FOR IMPROVEMENT

### 1.1.INTRODUCTION

- Breastfeeding (BF) is crucial to provide ideal and economical nutrition for baby's growth, development and antibodies in building up immunity.
- Throughout BF journey, majority (54%) of BFM are prescribed with medication during BF in order to maintain their health(1).

### 1.2.PRIORITISATION OF PROBLEM

Problem	S	M	A	R	T	Score
Low number of medication counselling for BFM in OPD HBT	26	26	28	28	26	134
Excessive floor-stock items in wards	20	26	20	24	26	116
High no. of uncollected drug through Kad Temujanji	22	28	22	20	20	112

### 1.3.REASON FOR SELECTION

- BFM who are not counselled or have poor information on medication may lead to treatment disruption, missed medication, medication error or premature BF cessation.
- Medication discontinuation may increased chronic condition symptoms and distress that interfered with women's breastfeeding efforts.
- Premature BF cessation could lead to infant's infectious morbidity and sudden infant death syndrome(2,3).

Counselling no. for BFM at OPD can be measured.

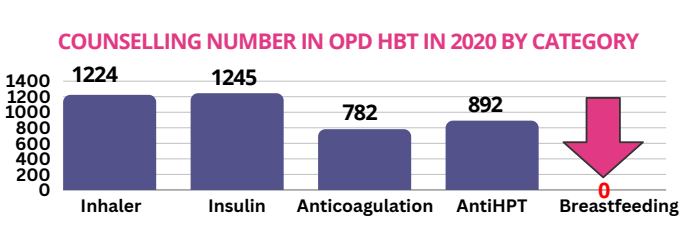
Increase counselling for BFM can improve compliance to drug and hence patient outcome while continue BF and minimise side effect to the infant (2,3).

Can be done through collaboration of pharmacist and patient.

This study can be completed within 1 year

### 1.4.PROBLEM STATEMENT

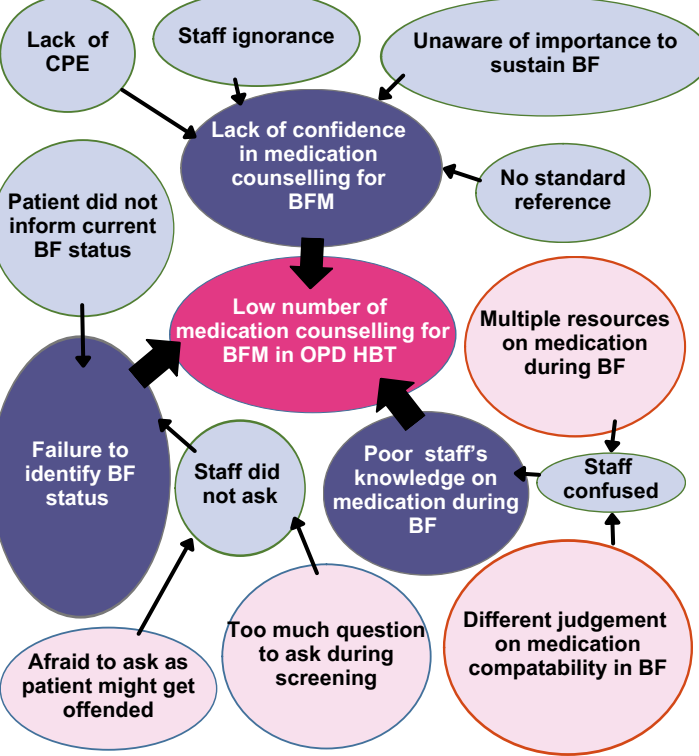
- A pilot study carried out in December 2020 showed that 61.9% of BFM did not receive information regarding medication use in BF.
- Lead to medication error and premature cessation of BF.



### 1.5.LITERATURE REVIEW

Ceulemans, Michael. (2019).	80% respondents agreed that <b>pharmacists should take the role to do counselling for BFM</b> . Possible barriers include difficulties identifying BF status (71%) and lack of education (67%)
Yalnizoglu Caka S., Zengin H., Cinar N., Altinkaynak S.(2016)	Majority (67.1%) BFM do not have information about drugs. 33.3% avoid to take medications due to the fear of harm to the baby although indicated. 74.9% think that if possible, a BFM should not use any drugs.

### 1.6.PROBLEM ANALYSIS CHART



### 1.7.TERM & DEFINITION

<b>Medication Counselling (MC)</b>	Providing verbal or written information about medications to the patient or his/her caregiver. It also includes providing proper directions of use, advices on side effects, administration of time and reinforce on adherence(3)
<b>Breastfeeding Mother (BFM)</b>	Mother who is currently feeding her breast's milk to her infant either directly or indirectly from a cup or bottle(1).

## 2. KEY MEASURES FOR IMPROVEMENT

### 2.1.OBJECTIVES

**GENERAL OBJECTIVE :**

- To increase percentage of medication counselling for BFM in OPD HBT.

**SPECIFIC OBJECTIVE :**

- To determine percentage of medication counselling for BFM in OPD HBT.
- To identify contributing factors to low percentage of medication counselling for BFM in OPD HBT.
- To formulate strategies and to implement possible remedial actions.
- To evaluate effectiveness of remedial measures implemented

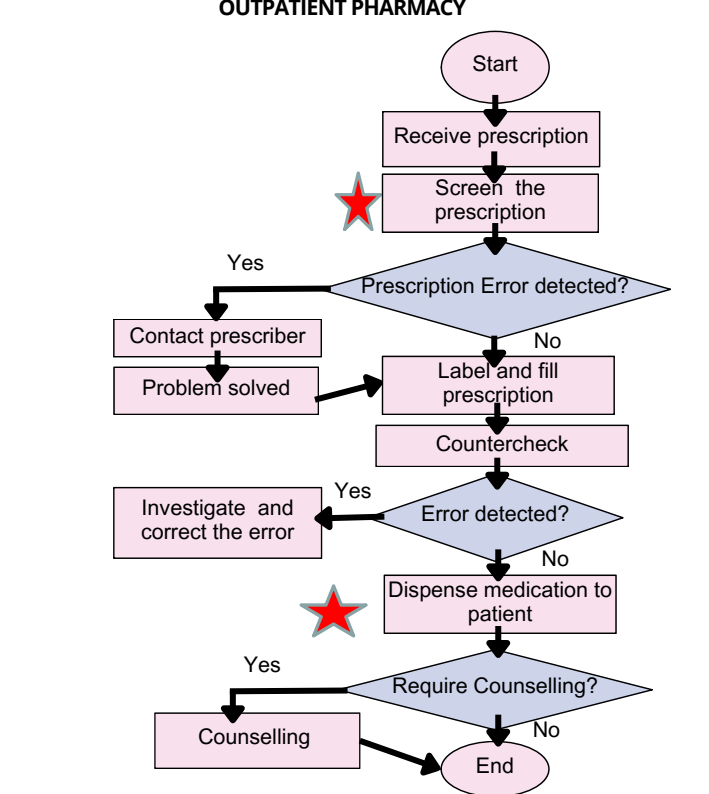
## 2.2.INDICATOR & STANDARD

### INDICATOR

Percentage of medication counselling for BFM visiting OPD:  
 Total no. of BF medication counselling given for BFM visiting OPD x 100%  
 Total no. of required BF medication counselling given for BFM visiting OPD

STANDARD	Requirement
>75%	Community pharmacists' attitudes, barriers, knowledge and counseling practice with regard to preconception, pregnancy and lactation(2). Based on Mesyuarat Pengurusan Jabatan Farmasi bil 1/2021

### 2.3 PROCESS OF CARE



### 2.4. MODEL OF GOODCARE

No	Process	Criteria	Standard	Verification (n=80)	Cycle 1 (n=71)	Cycle 2 (n= 75)
1	SCREENING	Check for BF status	100%	0%	50%	93.3%
		Check for age of BF infant	100%	0%	40%	93.3%
		Check for medication compatibility	100%	0%	40%	93.3%
2	DISPENSING	Counselling BFM as per term and definition.	100%	11.3%	66.2%	97.3%

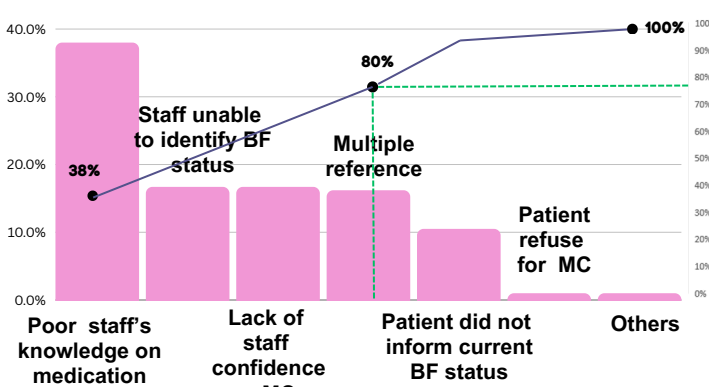
## 3. PROCESS OF GATHERING INFORMATION

### 3.1 METHODOLOGY

Study Design	Cross-sectional Study
Study Sample	All BFM who came to OPD receiving medications and met inclusion criteria
Sampling Technique	Universal sampling
Study period	VERIFICATION:February 2021 CYCLE 1:March- August 2021 CYCLE 2: April 2023- September 2023
Data Analysis	Microsoft Excel
Inclusion Criteria	All BFM who came to OPD receiving medications
Exclusion Criteria	After office hour and unconsented patients

## 4. ANALYSIS AND INTERPRETATION

### 4.1.PARETO CHART



## 5. STRATEGIES FOR CHANGE

Factor: Staff's poor knowledge on medication use in BF

### 5.1. MAMAMED & MAMAREF

MamaMed & MamaRef QR code displayed for quick reference at screening, labelling and dispensing counter.

**MamaMed:** an online references about medication compatibility and safety information for BFM in Google Drive form based on reliable established lactation pharmacology references

**MamaRef:** It is created as part of the MamaMed. It comprised lactation pharmacology references and preferred medication following medication category.

Factor: Unable to identify BF status

### 5.2.MAMA SIGNAGE ,MAMA BASKET & MAMA STAMP

- To alert patient to declare as BFM during screening process.
- To assist pharmacist to identify BF status

Factor: Staff's poor knowledge on medication use in BF

### 5.3.LACTSTICKER

**Lactsticker on medication's bin**

**Explanation category on shelf**

Cycle 1

Lactsticker displayed on medication's bin based on Hale's lactation risk categories (L1 to L5) for quick reference.

### 5.4. EDUCATION LEAFLET AND VIDEO

**EDUCATION LEAFLET**

1. Increase patient's knowledge

**EDUCATION VIDEO**

1. Covid-19 vaccination quick information for BFM (at leaflet & TV display at OPD waiting area)

### 5.5. CME AND BF COUNSELLING CHECKLIST

**Attendance Pharmacy: 52**

**Pharmacy: 32 Other Units: 29**

Cycle 1

Cycle 2

**BF Checklist**

### 5.6. COMMUNITY OUTREACH PROGRAMME

**Hari Ramah Mesra & BF Explorace**

Cycle 2

Collaborate with Unit Pemakanan PKD Kuala Langat

### 5.7.RADIO TALK @ BERNAMA RADIO

SELAMAT TAK IBU AMBIL UBAT SUSUKAN BAYI?

1.8.2023 Selasa 9.30 pagi

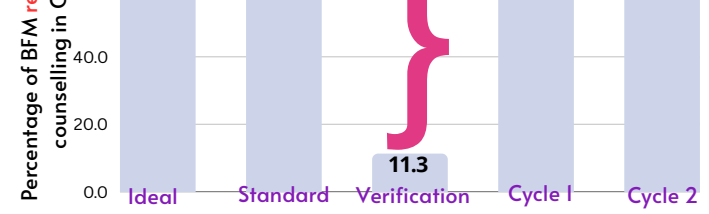
Nur Atiqah binti Sarani Pegawai Farmasi Kementerian Kesihatan Malaysia

Live Video was shared in

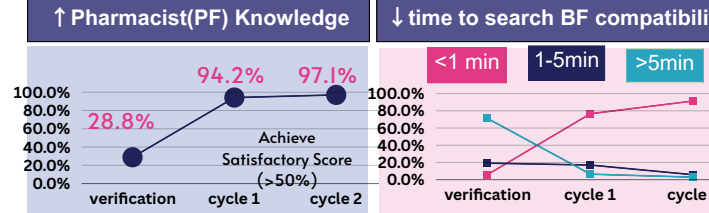
- FB Hospital and Happy Breastfeeding Malaysia Support Group

## 6. EFFECT OF CHANGE

### 6.1.ABNA



### 6.2. EFFECT OF CHANGE ON PHARMACIST



### 6.3. EFFECT OF CHANGE ON PATIENT (BFM)

**BP (mm/Hg)**

Systolic Diastolic

Mother's BP ↓ after counselling

Perindopril 2mg Perindopril 4mg

1/10/21 Took 2mg EOD 8/11/21 31/12/21

**OVERALL:**

- ↑ confidence to take medication :25% > 84% resulting improved clinical outcome.
- ↑ understanding & scored high knowledge : 31.3% > 90%
- ↑ compliance: 37.5% > 78.1%
- ↓ Formula Milk cost: -RM200-RM1K/ month/child

**BFM's Blood Pressure (BP)**

Unit (U/L) AST ALT

22/12/22 PTU 100mg OD 23/2/23 Carbimazole 15mg OD

PF suggest to opt alternative med

**Infant's Liver Profile.**

16/11/22 (1 month old) 17/1/23 25/1/23 10/5/23

### 6.4 LESSON LEARNT

- BF related issues such as medication information among BFM is important but not well explored in Malaysia due to **sensitivity issues**
- Pharmacists play important role to improve pharmaceutical care for BFM by shared decision making using evidence-based lactation pharmacology resources.
- By **improving pharmacist's knowledge on lactation pharmacology and improve screening** for BFM, more counselling can be done.

## 7. THE NEXT STEP

- Convert MAMAMED to mobile app.
- Expand the usage of MAMAMED to other health facilities in JKNS

## 8. REPLICATION

Expanded to other health facilities. Replicated by KK Peringat, Kota Bharu :

- CME Slide
- BF MC Checklist
- Education Leaflet

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