

# TOWARDS ZERO PERCENTAGE OF UNCOLLECTED DRUG ALLERGY CARD (DAC) IN HOSPITAL TENGGU AMPUAN AFZAN (HTAA), KUANTAN

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QLL138

## INTRODUCTION

The aim of implementation of Drug Allergy Card (DAC) in Malaysia is to enable healthcare practitioners to access patients' drug allergy histories. In HTAA, there were 36.8% (n=66) of uncollected DACs from January to September 2023 and there were two potentially fatal cases reported in HTAA medication error registry 2020-2022 due to re-administration of known allergenic medications. Thus, this project aims to identify factors contributing to uncollected DACs, propose remedial actions, and work towards achieving zero percentage of uncollected DACs.



## 1 SELECTION OF OPPORTUNITIES FOR IMPROVEMENT

### 1.1 PROBLEM PRIORITIZATION

| No | Problems   | S  | M  | A  | R  | T  | Total |
|----|--|----|----|----|----|----|-------|
| 1  | High percentage of uncollected Drug Allergy Card   | 15 | 15 | 15 | 15 | 12 | 72    |
| 2  | High numbers of Import Permit for unregistered medications (UKK) applied and approved but not used | 12 | 15 | 15 | 9  | 9  | 60    |
| 3  | No standardized inquiry form causing incomplete information  | 9  | 12 | 15 | 15 | 15 | 66    |
| 4  | High percentage of unclaimed Locker4U drug packages  | 12 | 15 | 15 | 12 | 12 | 66    |
| 5  | High percentage of doctors not registered in PHIS system   | 9  | 15 | 15 | 9  | 9  | 57    |

Group members: 5 Weightage: 1 - low, 2 - medium, 3 - high

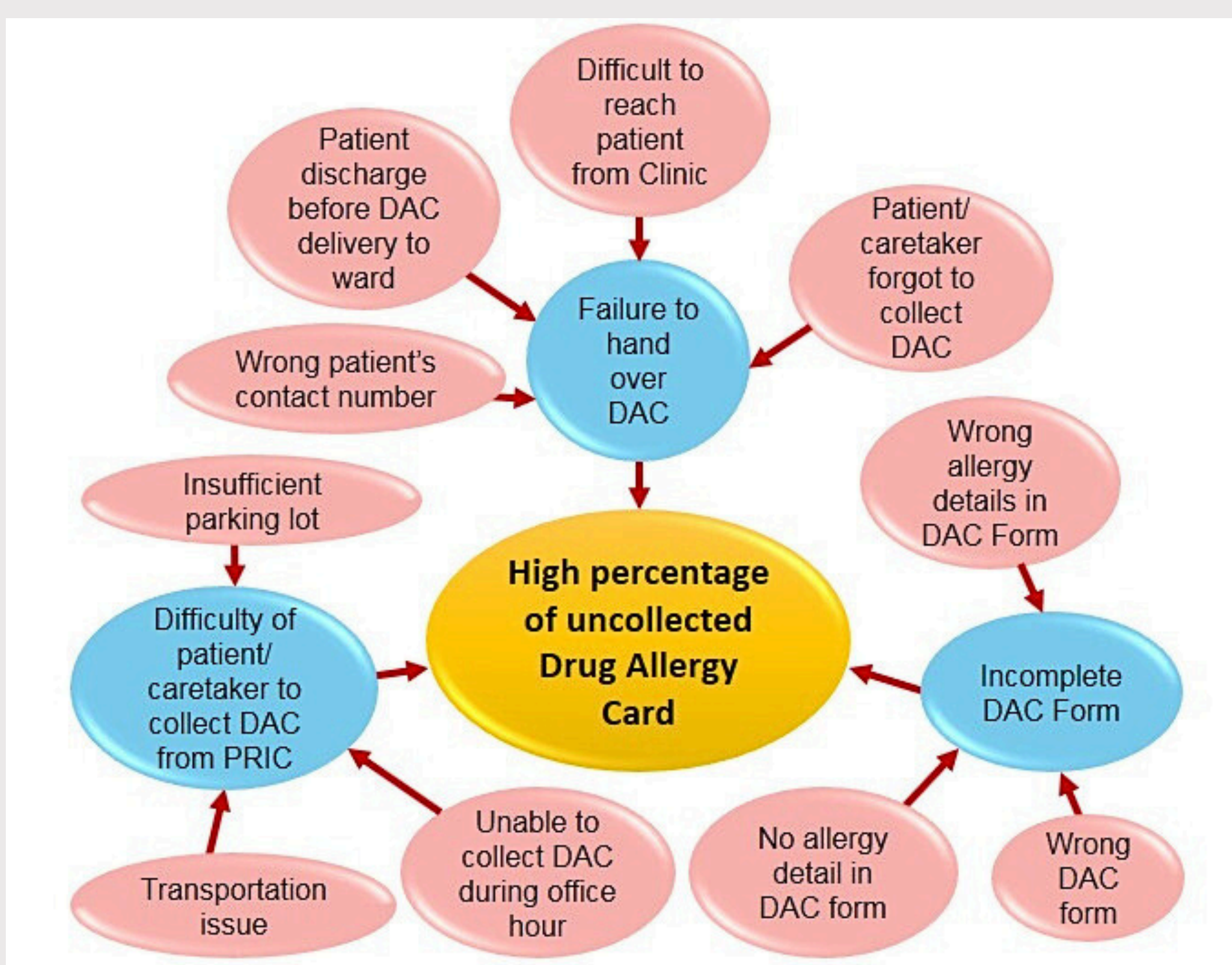
### 1.2 RATIONALE FOR SELECTION

| S | SERIOUSNESS  |
|---|--|
|   | Uncollected Drug Allergy Card may cause prescriber unaware of patient allergy status which may lead to patient's harm or death |
| M | MEASURABLE   |
|   | Data obtained from Drug Allergy Registry   |
| A | APPROPRIATENESS  |
|   | To prevent patient receiving same medication that causing allergy reaction   |
| R | REMIABLE   |
|   | Remedial action can be done by efficient flow of receiving DAC   |
| T | TIMELINESS   |
|   | QA study can be completed within 12 months   |

### 1.3 PROBLEM STATEMENT

Uncollected DAC are causing prescriber unaware of patient's allergy status which may lead to medication error, patient's harm or even death. Uncollected drug allergy card may be due to incomplete DAC Application Form, difficulty of patient/caretaker to collect DAC from PRIC and failure to handover DAC. We hope to identify factors contributing to uncollected DAC by patients and propose remedial action. This QA study can be completed within 12 months.

### 1.4 PROBLEM ANALYSIS CHART



### 1.5 AIM OF STUDY

#### GENERAL OBJECTIVE

To reduce percentage of uncollected DAC

#### SPECIFIC OBJECTIVES

- To measure percentage of uncollected DAC
- To investigate contributing factors which lead to high numbers of uncollected DAC
- To carry out appropriate remedial measures based on contributing factors
- To evaluate the effectiveness of remedial measures

## REFERENCES

- Pharmacy Services Division, Ministry of Health Malaysia. Garis Panduan Pengesanan Pesakit dengan Alahan Ubat. In: Pharmacy Services Division, Ministry of Health Malaysia, ed 2011.
- Brockow K, Aberer W, Atanaskovic-Markovic M, et al. Drug allergy passport and other documentation for patients with drug hypersensitivity—an ENDA/EACI Drug Allergy Interest Group Position Paper. *Allergy*. 2016;71(11):1533-1539
- Lee, F. Y., Chan, H. K., & Wong, H. S. (2019). Effectiveness of drug allergy card to prevent repeated prescribing of allergenic medications in a Malaysian public hospital. *Pharmacoepidemiology and Drug Safety*, 28(5), 760-761.

## 2 KEY MEASURES FOR IMPROVEMENT

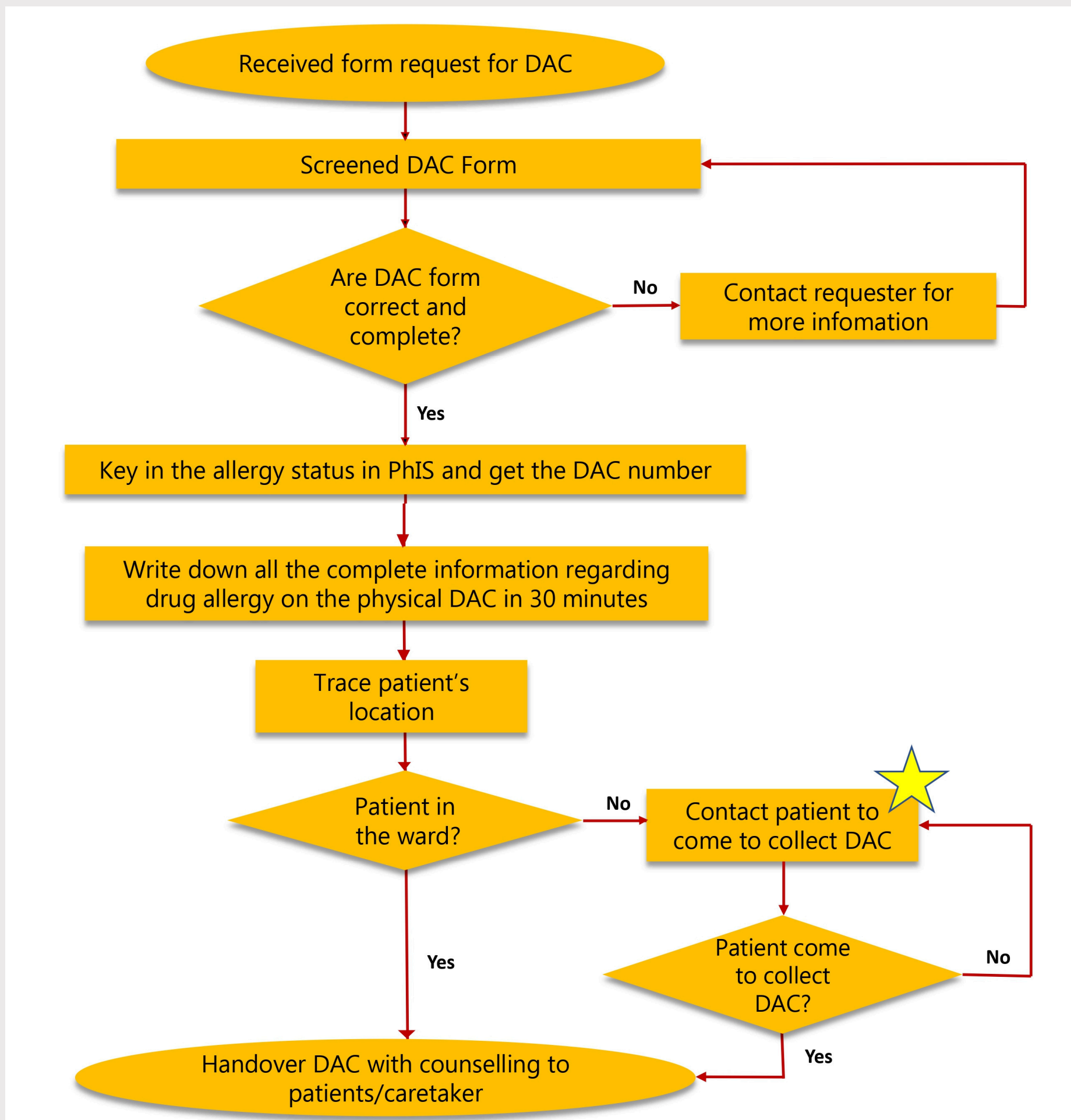
### 2.1 INDICATOR & STANDARD

**INDICATOR** % of Uncollected Drug Allergy Card

**STANDARD** 0% of Uncollected Drug Allergy Card

**FORMULA**  $\frac{\text{Total Number of Uncollected Drug Allergy Card}}{\text{Total Number of Drug Allergy Card Issued}} \times 100\%$

### 2.2 PROCESS OF CARE



## 3 PROCESS OF GATHERING INFORMATION

|                            |  |
|----------------------------|--|
| Type of Study              | Quality Improvement Study  |
| Study Population           | Patients with allergy reaction detected and reported in HTAA   |
| Exclusion Criteria         | <ul style="list-style-type: none"> <li>Invalid DAC form (no prescriber's stamp and sign)</li> <li>Patient passed away</li> </ul>                                       |
| Sampling Method            | Universal sampling   |
| Study Period               | January to September 2023  |
| Data Collection techniques | <ol style="list-style-type: none"> <li>Data Collection Form</li> <li>Questionnaire "Mengkaji Faktor-Faktor Kad Alahan Pesakit Tidak Tuntut/Lambat Dituntut"</li> </ol> |

Collected the data via data collection form

Collected the factors of uncollected DAC via Google Form Questionnaire

## 4 ANALYSIS & INTERPRETATION

### 4.1 VERIFICATION STUDY

**Result of Verification Study**

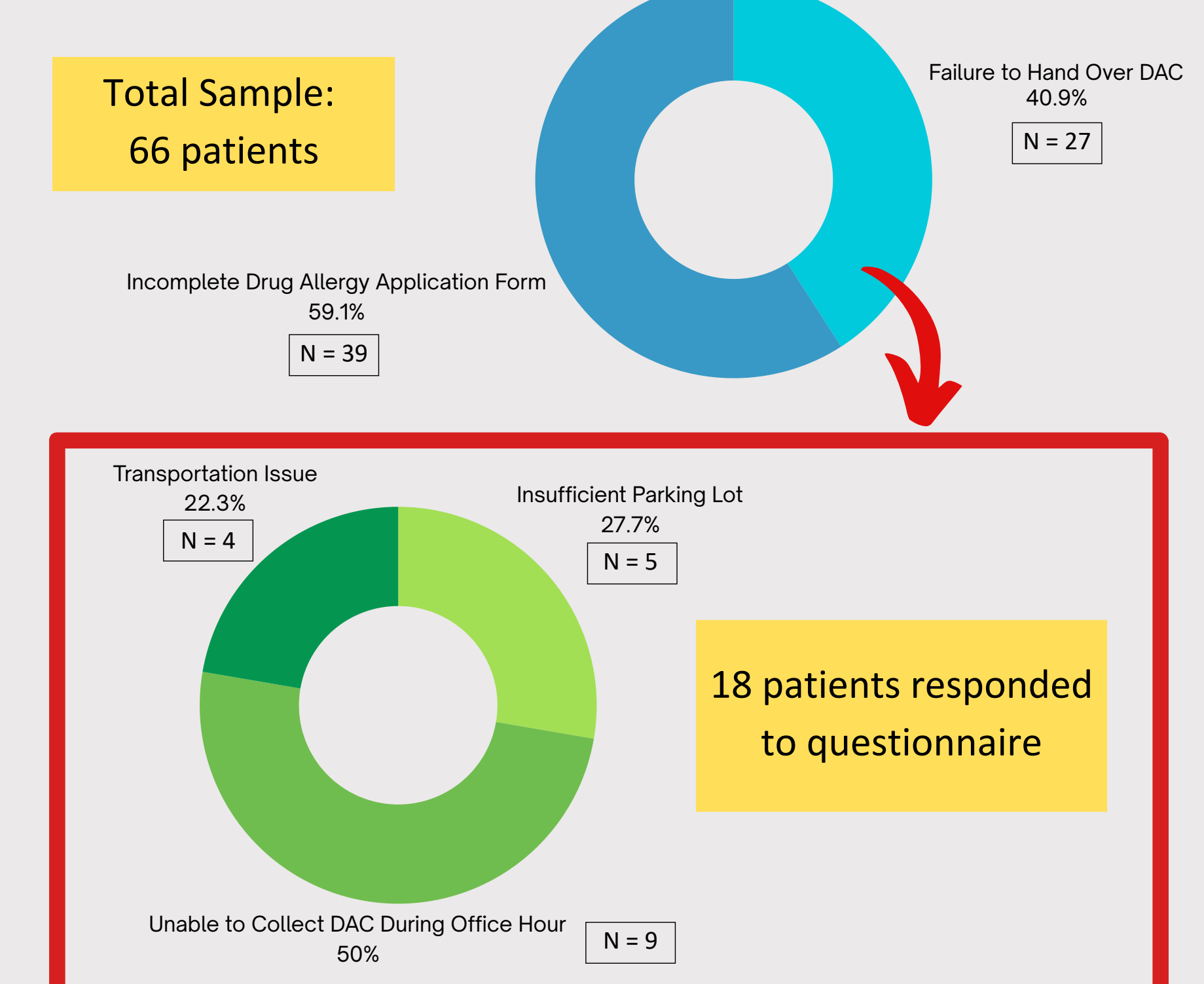
**ABNA**

$\frac{\text{Total No of Uncollected Drug Allergy Card}}{\text{Total No of Drug Allergy Card Issued}} \times 100\%$

$= \frac{66}{179} \times 100\%$

**36.8%**

### 4.2 CONTRIBUTING FACTORS FROM VERIFICATION STUDY



## 5 STRATEGIES FOR CHANGE

### CYCLE 1 FACTOR 1: INCOMPLETE DRUG ALLERGY APPLICATION FORM

- Increase awareness in DAC reporting
- Create guide for Allergy Card Application
- Create QR code to access DAC Form and display at Medication Safety File/board at 79 wards/units/clinics

### FACTOR 2: FAILURE TO HAND OVER DAC

- Call patient after two weeks of uncollected DAC

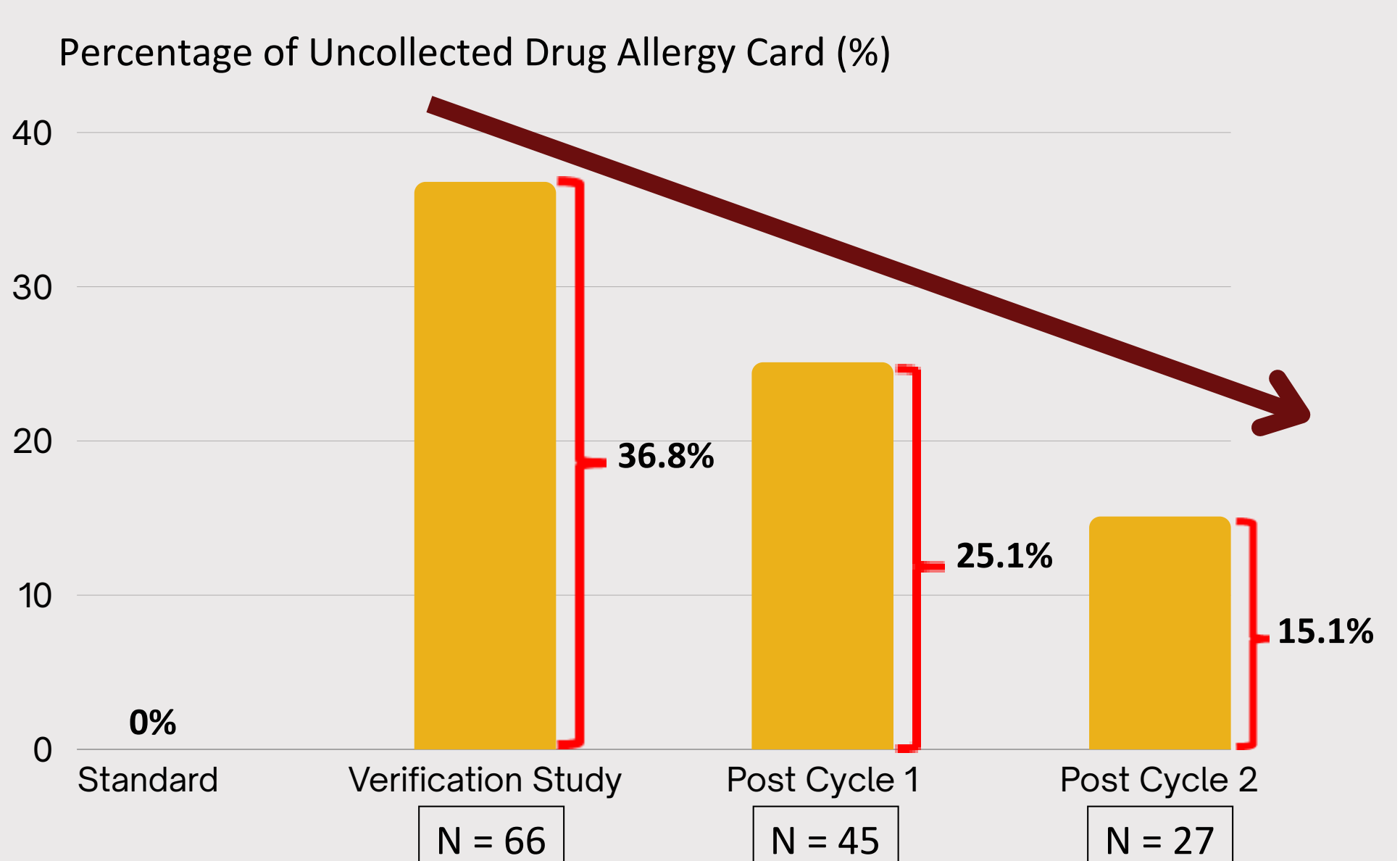
### CYCLE 2 FACTOR 2: FAILURE TO HAND OVER DAC FACTOR 3: DIFFICULTY PATIENT/CARETAKER TO COLLECT DAC FROM PRIC

- Create WhatApps Business Account to sent eDAC
- Generate eDAC from PHIS
- Send eDAC to patient via WhatsApp
- Create PRIC Hotline for patient to communicate regarding Drug Allergy Card

PRIC FARMASI HTAA HOTLINE: 09-5572209

## 6 EFFECT OF CHANGE

### 6.1 ACHIEVEMENT & ABNA



### 6.2 IMPACT OF STUDY

From this QA study, we able to:

- Reduce uncollected DAC from 66 DAC to 27 DAC
- Identify contributing factors that leads to uncollected DAC
- Increase patient benefit and reduce harm
- Increase efficiency of workflow in delivering DAC
- Reduce time consuming workflow

### 6.3 LESSON LEARNT

- The introduction of Whatsapp Business application increase the efficiency of delivering DAC
- Two cycle of interventions were able to lead to significant improvements

## 7 THE NEXT STEP

- To include drug allergy notification into MySejahtera App
- To implement eDAC to all patients
- To allow patients to collect DAC after office hour

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