PP-27

Reducing The Percentage Of Transcribing Errors In Pharmacy Information System (PhIS) At Pharmacy Departments Under Pejabat Kesihatan Daerah Kampar

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INTRODUCTION

Transcribing errors is defined as any deviation in transcribing medication order from the prescribing step and is due to data entry error that is commonly made by the human operator[1].

1.0 SELECTION OF OPPORTUNITIES FOR IMPROVEMENT

1.1 PROBLEM PRIORITIZATION-SMART

PROBLEM	S	M	A	R	T	TOTAL
Low recruitment of Therapy Adherence	15	18	18	15	15	81
Low recruitment of Therapy Adherence	15	18	18	12	12	78
High quantity of	15	18	18	15	15	81
High incidence of transcribing errors in Pharmacy Information System (PhIS)	18	18	18	15	15	84

S • 5.8%(n=361): Transcribing error reported in August 2020

M • Data obtained using pre-designed data collection & daily QAP1 Reporting Form

A • This study is suitable to be conducted because it involves significant impact on the patients medication safety

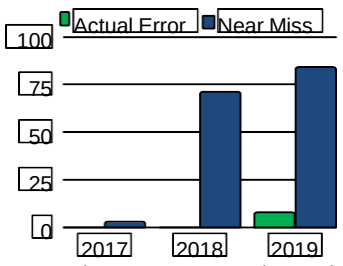
R • Remedial measure can be implemented to reduce transcribing errors in PhIS.

T • The study & remedial measure can be carried out within a year

1.2 LITERATURE REVIEW

- Fahimi et al., transcription error is defined as any deviation in transcribing medication order from the previous step and this could be found on an order sheet,notes and/or documentation in the pharmacy database[1]
- Lisby et al., discrepancies in the names of drugs, their formulations, route of administration, doses, dosing regimens, omission of drugs, or addition of drugs which were not ordered or prescribed that be found during transcribing stage are defined as transcription error[2]
- Study in Iran showed that medication transcription errors occurred in about 30% of the 558 opportunities for errors[1]
- Study in Pakistan showed medication transcription errors occured in 16.9 and 13.8% of the 6583 and 5329 medications transcribed onto inpatient profiles and discharge charts, respectively[3]

1.3 SITUATIONAL ANALYSIS



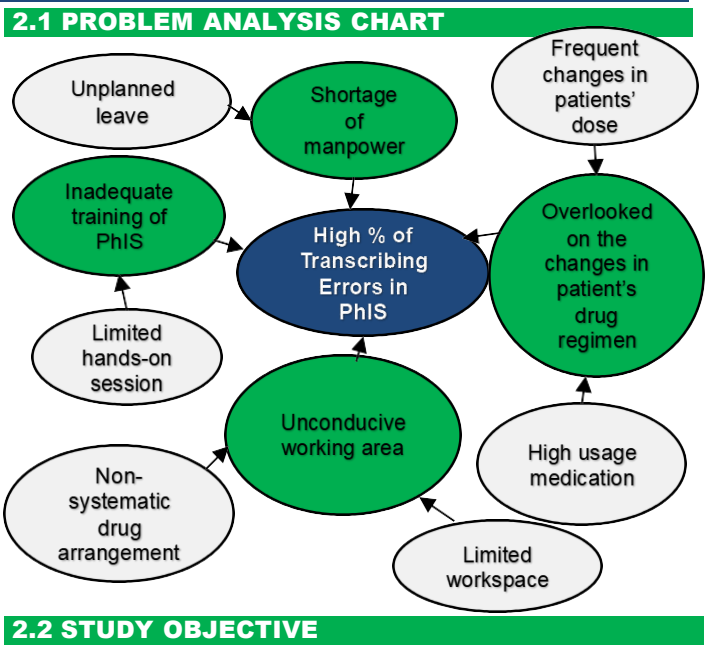
Reported Data Entry Errors in Perak

1.4 PROBLEM STATEMENT

In August 2020, out of 6224 prescriptions received at Pharmacy Departments under PKD Kampar, 361 (5 . 8 %) prescriptions with transcribing errors were detected. This might increase the tendency of patients getting wrong medications and unsafe treatment. Multiple factors including handwriting of prescribers, use of abbreviation, lack of familiarity with drug names and did not check the prescription carefully such as overlook any changes of doses of medications may contribute to this problem. This study aims to reduce percentage of transcribing errors in PhIS at Pharmacy Departments under PKD Kampar.

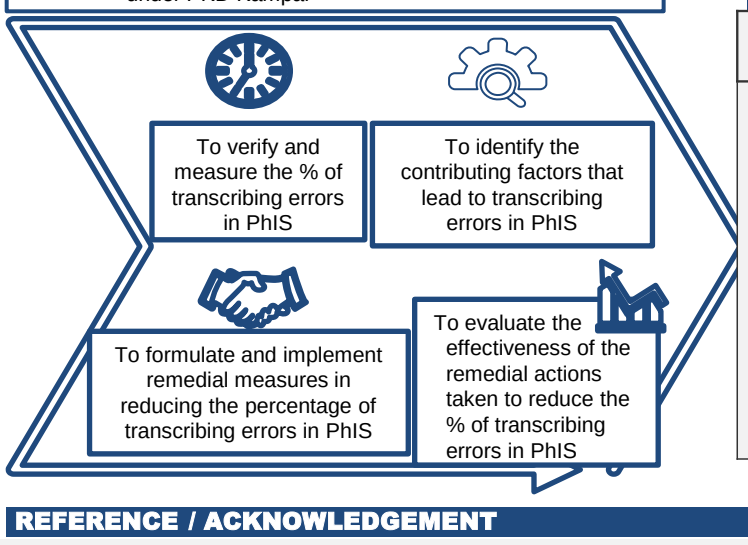
2.0 KEY MEASURE OF IMPROVEMENT

2.1 PROBLEM ANALYSIS CHART

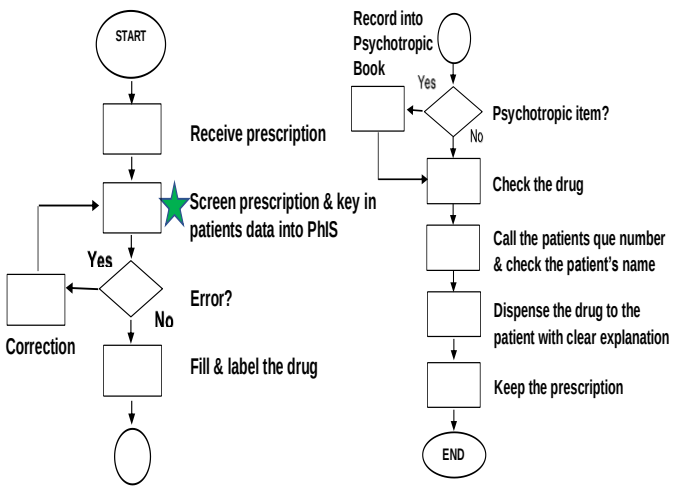


2.2 STUDY OBJECTIVE

GENERAL: ↓ **%** Transcribing errors in PhIS at Pharmacy Department under PKD Kampar



2.3 PROCESS OF CARE (POC)



Process of Care: Drug Dispensing

2.4 INDICATOR & STANDARD

INDICATOR: Percentage of transcribing errors in PhIS at the Pharmacy Departments under PKD Kampar

FORMULA:

% of Transcribing Errors in PhIS = Numbers of Transcribing Errors in PhIS / Total Number of Prescriptions Received in Pharmacy Departments X 100%

STANDARD = 0%

3.0 PROCESS OF GATHERING INFORMATION

3.1 METHODOLOGY

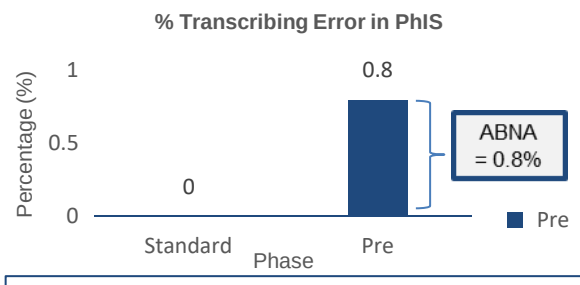
Study Design	Sampling Method	Study Tools
• Cross-sectional study	• Universal sampling technique	• Pre-designed data collection form • Daily QAP 1 reporting form

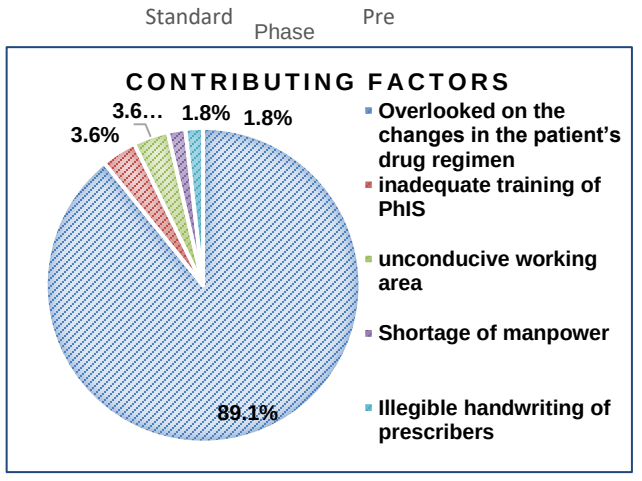
Study Duration

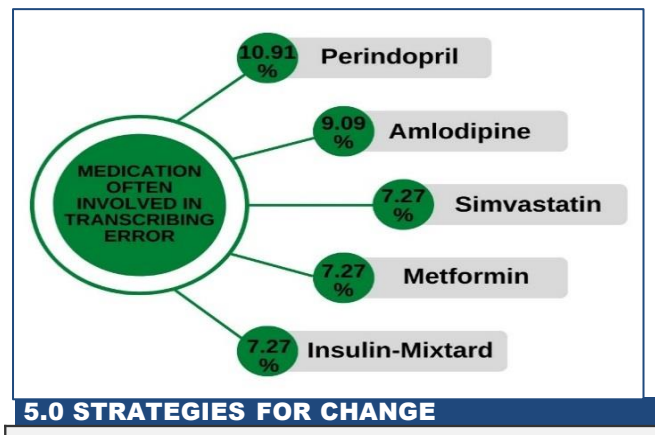
- Pre-intervention – 1st October 2020 to 31st October 2020
- Post 1 – 1st February 2021 to 28th February 2021
- Post 2 – 1st June 2021 to 30th June 2021

Inclusion Criteria	Exclusion Criteria	Data Analysis
• All new prescriptions received in Pharmacy Department	• Prescription from other facilities	• Descriptive statistic, Microsoft Excel

4.0 ANALYSIS & INTEPRETATION







5.0 STRATEGIES FOR CHANGE

CONTRIBUTING FACTORS 1 :
Overlooked on the changes in patient's drug regimen

Innovative Tagging Sticker

Orientation session with new Prescriber

List of Medication Frequently Transcribe Wrongly

CONTRIBUTING FACTORS 2:
Inadequate training of PhIS

Hands-on Session

Klinik Kesihatan Malim Nawar

Klinik Kesihatan Kampar

Klinik Kesihatan Gopeng

Continuing Medical Education (CME)

KK Kampar : 18/6/2022
KK Gopeng : 30/3/2022
KK Malim Nawar : 21/5/2022

CONTRIBUTING FACTORS 3:
Uncondusive Working Area

Rearrangement of working area
Working Space maximised

CONTRIBUTING FACTORS 4 :
Shortage of Manpower

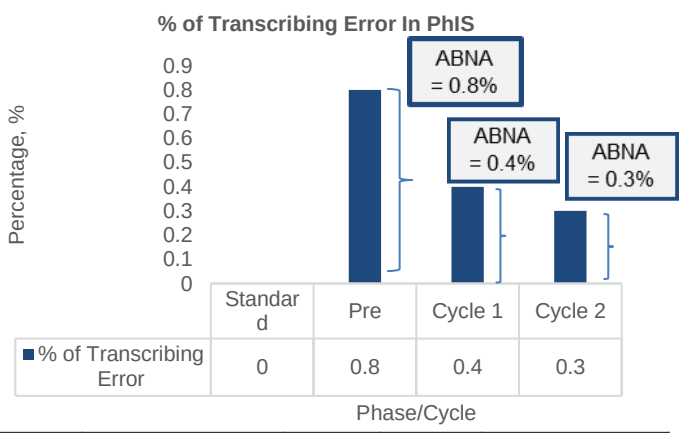
Stagged Appointment Basket

Stagged Appointment TCA

Google Sheet for Daily Staff Movement

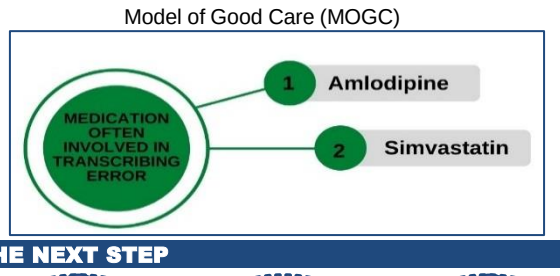
6.0 EFFECT OF CHANGE

Percentage of Transcribing Error	
Pre-Intervention	0.8% (n = 55)
Cycle 1	0.4% (n = 20)
Cycle 2	0.3% (n = 18)

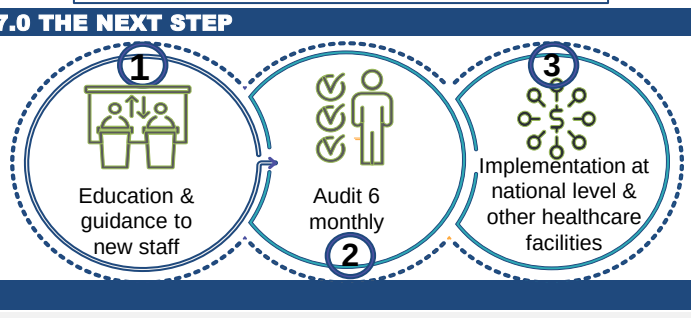


Process	Criteria	Standard	Pre	Cycle 1	Cycle 2
Screen prescription & key in patients data into PhIS	a.Patient registration	100%	100%	100%	100%
	b.Medication order	100%	100%	100%	100%
	c.Transcribe normal order	100%	100%	100%	100%
	d.Ammenment on drug & dose modification (if needed)	100%	91%	99%	100%
	e.Put on CQDC sticker for partial supply prescription and sign	100%	84%	93%	100%
	f. Print medication label	100%	100%	100%	100%
	g.Put the label & prescription into individual basket	100%	100%	100%	100%
	h.Place it at filling area	100%	100%	100%	100%

Model of Good Care (MOGC)



7.0 THE NEXT STEP



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[3]Shawahna R, Rahman NU, Ahmad M, Debray M, Yliperttula M, Decleves X. Impact of prescriber's handwriting style and nurse's duty duration on the prevalence of transcription errors in public hospitals. J Clin Nurs. 2013;22(3–4):550–8

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