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# Implementation of six patient safety goals at a public health centre with in-patient services in Bali, Indonesia: A qualitative case study

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## ABSTRACT

**Background and purpose:** The Indonesian government requires all health care facilities including public health centres (PHCs) to implement a patient safety program as part of the accreditation standard process. The implementation of patient safety in PHCs have faced various problems, including human resources and infrastructure issues. This study aims to explore the implementation of patient safety target procedures in an accredited inpatient PHC in Tabanan District, Bali, Indonesia.

**Methods:** We conducted a qualitative case study that adopts four main domains in patient safety, consisting of executive officers, community or patient who received services, systems in service delivery and methods, and elements in each domain. The research location was at Penebel I PHC, an inpatient PHC with the accreditation status of “utama”. Data collection was carried out from March to April 2020. It includes observation of the patient safety implementation, review on tracking patient safety documents and in-depth interviews with 11 informants who are PHC staff, patients’ safety task force and the family of patients. The data were analysed using thematic analysis by creating a grid of themes, sub-themes and data reduction to narrative presentation.

**Results:** The patient safety procedure in Penebel I PHC has been carried out through the standard and procedure according to the Ministry of Health (MoH) regulation which consist of patient identification; communication between staff and patients; maintain the safety of High Alert and *Look Alike Sound Alike* (LASA) medications. However, there is a need to improve the capacity of implementing officers to increase their communication competencies as well as to enhance cooperation between officers in health services to avoid patient safety incidents.

**Conclusion:** The implementation of six patient safety goals in-corporate through four main domains of health care services has been running according to the MoH’s standard. There is a need to improve the competence of officers, cooperation between officers in carrying out patient safety management and improve communication between officers and patients so that the information conveyed by officers is truly understood by patients.

**Keywords:** patient safety, public health center, accredited health service, Indonesia

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## INTRODUCTION

In an effort to achieve targets within the Sustainable Development Goals (SDGs), all health-related issues and concerns are integrated into the third goal of the SDGs, which is to ensure a healthy life and promote the welfare of people of all ages.<sup>1</sup> The Indonesian government internalizes this third goal through the Healthy Indonesia Program with three main pillars, namely the healthy paradigm, health services and national health insurance. The health service pillar is

directed into efforts to increase access and quality of health services from primary to tertiary levels. Primary health care adopts a risk-based continuum of care, starting from clinical governance, management and programs to improve service quality. One of the management practices referred to is patient safety.<sup>1</sup>

Improving patient safety is at the forefront of policy and practice. Great progress has been made in understanding the frequency, causes and consequences of errors in hospitals, but the safety of first-line care has not been much explored. In

Houston, Texas, it was found that patient safety incident reports in the period 1980-2014 showed an average of two to three incidents of threat to patient safety from 100 outpatient visits to primary health care, and 4% of these were fatal to patients.<sup>2</sup> Another study in the UK mentions the occurrence of 2091 incidents of pediatric patient safety from mild to fatal in the period of 2005-2013 in primary health care in the UK.<sup>3</sup>

Studies in a number of developing countries show that a large number of disadvantages due to inadequate

implementation of patient safety protocols experienced by patients during health care, either result in permanent injury, increased length of stay in health care facilities, or even deaths. Types of violation against patient safety such as administrative errors, misdiagnosis, medical and medication errors, with an average of one patient safety incident reported every 35 seconds in Great Britain.<sup>4,5</sup>

World Health Organization (WHO) adopted a World Health Assembly resolution regarding patient safety for the need to reduce the harm and suffering of patients and their families. This is supported by evidence that economic benefits can be maximized by increasing patient safety. Patient safety management in primary health care also needs serious attention. WHO has issued a guidebook for the Technical Series on Safer Primary Care in 2016 on the implementation of patient safety management in primary health services.<sup>5</sup>

The Indonesian government has also issued various regulations regarding patient safety starting from the Minister of Health Regulation Number 75 Year 2014 concerning PHC.<sup>8</sup> Furthermore, the Minister of Health Regulation Number 46 Year 2015 concerning PHC Accreditation states that efforts to improve quality, risk management and patient safety need to be implemented in the management of PHCs so that the provision of comprehensive health services can be achieved.<sup>9</sup>

The Indonesian Minister of Health Regulation Number 11 Year 2017 concerning patient safety mandates all health service facilities to strive for patient safety in order to improve service quality.<sup>10</sup> Patient safety targets as stated in the Minister of Health Regulation Number 11 Year 2017 include six targets, namely: 1). Correct and precise patient identification; 2). Increased effective communication; 3). Improved safety of high alert and *Look Alike Sound Alike* (LASA) medications; 4). Certainty of the location of the surgery procedure and the patient; 5). Reduction in the risk of infection due to treatment; 6). Reduction in the risk of injury for patients to fall.<sup>10</sup>

Research on the implementation of patient safety goals, both qualitatively and quantitatively, have been carried

out in many hospitals. Research on the implementation of qualitative patient safety goals at the General Hospital of the Evangelical Church in Minahasa (GMIM) Kalooran Amurang, Manado shows that the implementation of the six patient safety goals has gone well, starting with the use of an identity bracelet to ensure the accuracy of patient identity, the use of S-BAR (Situation, Background, Assessment, Recommendation) with mechanisms to increase effective communication. Use of medicine lists, locked medicine cabinets, and double check systems to increase drug safety. Use of checklists and involve patients in surgical marking, use of hand hygiene manuals in reducing the risk of infection, as well as initial assessment with score and label assessment to reduce the risk of patients falling.<sup>11</sup>

There is a dearth of research related to patient safety at PHCs in Indonesia and there is no study result that provides a comprehensive assessment of the implementation of the six patient safety goals. Therefore, it is necessary to carry out research on the implementation of patient safety protocols in PHCs in an effort to improve the quality of services at PHCs. Patient safety at the PHCs has begun to garner attention since PHC accreditation began. The implementation of patient safety is an element of assessment and determines the accreditation status of the PHC. Currently, all PHCs in Tabanan District have basic (“*dasar*”), intermediate (“*madya*”) and main (“*utama*”) accredited status. This study aims to explore the implementation of patient safety goals at the Penebel I PHC, a PHC with *utama* status, in terms of six patient safety goals.

## METHODS

This study used a qualitative case study design to describe the implementation of patient safety goals in an inpatient health center with “*utama*” accreditation status in Tabanan District. There are six inpatient health centers in Tabanan District, namely: Tabanan III PHC, Baturiti I PHC, Pupuan I PHC, Selemadeg PHC, West Selemadeg PHC and Penebel I PHC. The study took place from March to April 2020 at Penebel I PHC.

This case study was developed using data collected through observing the

implementation of patient safety targets using observation guidelines; tracking patient safety documents such as policies in the form of Decree (*Surat Keputusan/SK*), manuals, Standard Operating Procedures (SOP); and in-depth interviews. Interviews were carried out by involving 11 informants who had been selected purposively with the criteria of knowing the application of patient safety, patient safety implementing officers, systems in implementing patient safety and understanding patient safety issues such as the quality team and the patient safety implementing team as well as the PHC accreditation companion regulatory team. In addition, researchers also interviewed the families of patients who had been treated in the inpatient room at Penebel I PHC. Interviews were conducted using an interview guide that lasted 30–60 minutes. The interview process was recorded using a recording device, then the results of the recording were transcribed.

The data were analysed using thematic analysis by making a grid of themes, sub-themes and data reduction to narrative presentation.<sup>12</sup> In data analysis, researchers found four main domains of application of six patient safety goals, namely 1). Officers who carry out patient safety; 2). Community or patients receiving services; 3). The system for providing health services; and 4). The interrelated methods and elements of each domain.<sup>13</sup> Themes and sub-themes were described in [Table 1](#).

This research obtained an Ethical Clearance from the Research Ethics Committee of the Faculty of Medicine, Udayana University/Sanglah General Hospital Denpasar with number 456/UN14.2.2.VII 14/LP/2020 dated February 26, 2020.

## RESULTS AND DISCUSSION

### Characteristics of Informants

The characteristics of the informants involved in the study represented the management elements of the leadership, namely the patient safety team leader, the quality team leader, and the PHC leader. Implementing elements consisting of doctors on duty, pharmacists, planning staff, nurses, and midwives. Official or regulatory elements, namely the PHC accreditation team. Finally, the

user element consists of two patient families who at the time of the study were accompanying patients in the inpatient room of the Penebel I PHC. The characteristics of the informants are presented in Table 2.

### 1. Implementation of patient safety targets at Penebel I PHC

Patient safety efforts at Penebel I PHC started when Penebel I PHC participated in the PHC Service Excellence (*Puskesmas Layanan Prima*) process in 2015. This effort was included in the activities of the PHC quality control team. In 2016, when the PHC prepared its first accreditation, the PHC quality control team was changed to a Clinical Quality and Patient Safety Improvement Team (*Peningkatan Mutu Klinis dan Keselamatan Pasien/PMKP*). The following is the informant's statement.

*“Regarding the preparation of PHC Service Excellence in 2015, we have a health center quality control team in which there are quality and patient safety officers. In 2016 this team was transformed into a PMKP team in accordance with the PHC accreditation requirements.”(KPUS003)*

After the latest 2017 regulations regarding patient safety, the PMKP team at the PHC also underwent changes. The quality and patient safety team are divided into the PHC quality team and the PHC patient safety team. The PMKP team members are also divided into members of the quality team and members of the patient safety team. The patient safety team members are members of the Individual Health Efforts (*Upaya Kesehatan Perorangan/UKP*) quality team.

The implementation of safety targets at Penebel I PHC runs in accordance with the six patient safety targets listed in the Minister of Health Regulation Number 11 Year 2017. These targets include patient identification, communication between staff and patients, maintain the safety of High Alert and LASA medications, provision of information before action, reduced risk of infection, and reduced risk of falling patients.

**Table 1. Research Themes**

Themes	Sub Themes	Quotes
Provider	Role Model	<i>“...the patient safety team is a role model in each unit in an effort to drive activities ...”(KPUS003)</i>
	Provider capacity building	<i>“...to train human resources ..... improve communication skills through service excellence training.”(BJU008)</i>
Patient	Patient identification	<i>“Subjectively.... name and address. Objectively...medical record data, history. ... Identification in the form of a bracelet for the patient ....”(PJU007)</i>
	Pre diagnosis information	<i>“...prior to the procedure, patients were provided with information... informed consent.”(KTKP001)</i>
Service provision system	SOP and service provision streams	<i>“...equipped with SOP related to patient safety... adjusting the accreditation guidelines... testing and implementation... written rules.”(KPUS003)</i>
	Pharmaceutical procedures	<i>“Drug safety... high alert and LASA... special marking... separately.”(APT005)</i>
	Risk infection procedures	<i>“...getting used to washing hands... touching patients, ... five moments.”(KTKP001, KTM002)</i>
	Procedures to reduce incidence of falls	<i>“...do a risk score calculation... yellow patient bracelet.”(KTKP001, DJU004)</i>
Method and element	Improvement in management of quality, facilities and infrastructure, evidence-based planning and policy establishment	<i>“Before the implementation ... internal workshop and outreach..... prioritizing patient safety goals..., establishing operational definitions and measurement processes.” (KPUS003)</i>
	Improved communication skills and officer cooperation	<i>“communication ... paramedics ... operandi book and medical records ... doctor's instructions ... performed by paramedics at the next shift.” (KTKP001)</i>

**Table 2. Informant Characteristics**

Informant Code	Age (years)	Gender	Education	Role	Working years
KTKP001	42	Male	Bachelor	General practitioner	17 years
KTM002	30	Male	Bachelor	Quality team	5 years
KPUS003	49	Male	Bachelor	PHC Director	10 years
DJU004	37	Female	Bachelor	General practitioner	6 years
APT005	26	Female	Bachelor	Pharmacist	1 years
BSP006	42	Female	Diploma	Planning staff	18 years
PJU007	27	Male	Diploma	Nurse	4 years
BJU008	28	Female	Diploma	Midwife	5 years
TPA009	57	Male	Master	Accreditation support	29 years
KP001	40	Male	High school	Patient family	-
KP002	43	Female	High school	Patient family	-



### 1.1 Patient safety implementing team as a role model

The implementation of six patient safety goals at Penebel I PHC is carried out by a patient safety team consisting of a coordinator or head of the room from each member unit. This patient safety team acts as a role model in each unit to drive patient safety activities starting from planning, implementing and monitoring on an ongoing basis.

*“We place people in the patient safety team as role models in each unit in an effort to drive patient safety activities in these units. This arrangement is based on workload analysis and the needs of a role model in each of these units.” (KPUS003)*

*“then there are several coordinating teams in each polyclinic unit, the person in charge (PIC) of the laboratory will be the patient safety coordinator for the lab, PIC of maternal and child health (MCH) for the MCH unit, PIC of polyclinic for the polyclinic unit, PIC of emergency room (ER) for the ER unit, PIC of Pharmacy for the Pharmacy Unit. So they have all been provided with procedures for calculating the achievement of patient safety indicators, and their reports are also a benchmark for determining priority areas in the future.” (DJU004)*

The appointment of a role model not only plays a role in leading and managing the implementation of patient safety, but also has the duty to maintain the implementation of patient safety.<sup>14</sup> This is consistent with research at the Mangkang PHC, Semarang, which found that the implementation of patient safety programs is hampered by the fact that no mentors or role models have been appointed for each service unit.<sup>15</sup>

Researchers found that the role models at Penebel I PHC still experienced obstacles in the implementation of the six patient safety goals, such as a different understanding of the unit staff about the implementation of the six patient safety goals.

*“The first issue is that the understanding of all employees is not the same, only the role model understands it, the*

*second is the consistency of measuring patient safety goal indicators, the third is the measurement, and the fourth are reports from units that are often late.”(KPUS003)*

*“The understanding of all PHC staff is different about the six patient safety goals, along with the many duties and responsibilities of employees.”(DJU004)*

### 1.2 Provider capacity building

The strategy carried out by PHC to overcome the problems experienced by the patient safety role models related to the lack of understanding of the implementing officers is to carry out a capacity building program of officers at the PHC through information dissemination or workshops by presenting competent speakers from outside the PHC. The following is an excerpt from the informant's statement.

*“Starting with raising commitments again, internal workshops presented by all employees and role models, conducting analysis with RCA and FMEA” (KPUS003)*

Although providers must produce patient safety reports, this sometimes resulted in delays in submitting monthly patient safety reports. This is evident in the emergency room staff when receiving patients in the afternoon or evening. In addition to taking medical action, officers also have to take administrative actions starting from counters to register patients as well as pharmaceutical measures to prepare patient medicines. The following is the informant's statement.

*“As far as I know, it is because we are all concurrent, for example in the afternoon and at night we really do our assignments when a patient enters the ER starting from the counter to the pharmacy and also at the place of action.”(BJU008)*

Routine monitoring is carried out by the Penebel I PHC quality team which indicates a need for additional staff. Analysis of the proposal for additional health center human resources has been made and sent to the Tabanan District Health Office.

*“We have made requests for additional staff as well as trained existing staff in effective communication skills” (BJU008)*

Leaders and all safety executing officers at the PHC try to implement patient safety targets in accordance with their respective main duties and functions and applicable SOPs in each service unit. The PHC is always striving to increase the capacity and number of human resources.

## 2. Patient aspects in the implementation of six patient safety goals

### 2.1 Accuracy of patient identification

The patient aspect in implementing patient safety is important because patients are partners in the process of implementing the six patient safety goals. The results showed that patients who received services at the Penebel I PHC went through several stages in health care to ensure the implementation of the six patient safety goals. The first step carried out by the officer is checking the correctness of the identity of the patient in each service unit at the Penebel I PHC. Starting from the patient registration counter, emergency room, inpatient room to the pharmacy service counter at the time of drug delivery. The following is an excerpt from the informant's statement.

*“Patient identification is carried out at all units, starting from when the patient arrives until they leave and receive any medication” (TPA009)*

*“Patient identification is carried out by asking the name of the patient, the address and verifying this with their ID card, national health insurance card and PHC patient card.” (BJU008)*

This is in accordance with the Minister of Health Regulation Number 11 Year 2017 which states that the identification process uses two patient identities.<sup>10</sup> The identification procedure is carried out by checking the correctness of identity, such as the name and address of the patient. The identification process can be done subjectively, namely by asking the patient directly about the name, address and other aspects. In addition, it can also be done objectively through data on the

patient's medical record and the results of anamnesis. Identification is also carried out with an identity bracelet on inpatients. The following is an excerpt from the informant's statement.

*"we ask the patient their name and address. Objectively, we then cross check this with the medical records and through anamnesis. We also provide ID bracelets for those going to inpatients unit." (PJU007)*

The implementation of patient identification procedures to reduce writing errors, as well as the implementation of regular monitoring of indicators, accompanied by good cooperation between doctors, nurses, laboratory staff and pharmacists is critical. In addition, one of factors which influences the safety of services at the PHC is the accuracy of patient identification. The existence of a misidentification at the beginning can result in an error in the next service.<sup>16,17</sup>

## 2.2 Provision of information before action

The next step carried out by health workers at the Penebel I PHC was the implementation of providing information before any procedure. The emergency room officer explained that the informed consent form was a document of consent for action to be carried out on the patient. Furthermore, the patient or patient's family signs the form as proof of consent to the procedure.

*"before we commence we provide the patient and family with an information sheet and informed consent." (KTKP001)*

*"we use informed consent for all procedures." (PJU007)*

Informed consent or consent to medical procedures is the consent given by the patient or his family on the basis of an explanation of the medical procedure to be performed on the patient.<sup>18</sup> Providing informed consent is an important part of implementing patient safety goals. Informed consent has a dual function, namely from the doctor's side and from the patient's side. For doctors, informed consent provides a sense of security in carrying out medical actions against

patients, as well as being used as a means of self-defense against the possibility of claims or lawsuits from patients or their families if undesirable consequences arise. Meanwhile, from the patient's point of view, informed consent is a manifestation of the patient's right where the patient has the right to obtain information about the disease he is suffering from, what medical action to take, and the possibility that will occur due to medical decision making.<sup>19</sup>

## 3. Health service provider system

### 3.1 Service flow and standard operating procedures (SOP)

Penebel I PHC already has an integrated service flow which is regulated in a quality document. A clear service flow makes it easy for patients to get health services and avoid patient safety incidents. Banners containing an illustration of the flow and services are installed at the entrance and registration counter of the Penebel I PHC. Through the use of this service flow information media at the entrance, it is hoped that the patient will be able to know in advance the stages of service experienced during treatment at the health center and what equipment are needed to be prepared starting from the registration counter. An overview of service integration is also illustrated in the flow and procedure of service delivery. One of them is services in the pharmacy room.

*"...ee in Penebel I PHC, especially in pharmacies, there is a priority indicator, namely the absence of errors in administering drugs. So there you can see that there is patient identification, which we do first from the name, address and age of the patient. This is included in the SOP for the delivery of drugs to patients, wherein the prescription comes, prescription are screened, drugs are prepared, packaged and identified. The first things to be asked are name, address and age. Then if this is certain, then we will provide information related to the drugs obtained. We at the pharmacy also do a double check, with those who are taking medicine, writing ethics and handing over the medicine are different persons." (APT005)*

In order for this service flow to be understood by officers, Penebel I PHC

already has SOP in each service flow. According to the accreditation rules, SOPs need to be tested and promoted before being implemented, however, the implementation of SOP trial activities at Penebel I PHC has not been regulated in writing.

*"each unit at the PHC has its own SOPs regarding patient safety, and these are trialed first to see the appropriateness, however these procedures are not yet in writing." (KPUS003)*

Before being implemented, each new SOP needs to be tested first to determine the suitability of the SOP with the situation and condition of the patient and the officer as the implementer. SOP of patient safety procedures need to be tested before they are implemented. The results of research related to standardization of SOPs at X PHC Kediri stated that the trial of an SOP was carried out for six days to see the suitability of the SOP. If there are no complaints during the implementation, SOPs can be set in.<sup>20</sup>

### 3.2 Pharmaceutical procedures in maintaining drug safety for patients

Penebel I PHC implements several other procedures to achieve patient safety goals, such as: procedures for maintaining the safety of high alert and LASA medications.

This is done to ensure the correctness and safety of drugs obtained by patients.

The following is an excerpt from the informant's statement regarding the procedure for maintaining drug safety.

*"medication safety precautions including high alert and LASA are in place including the use of identification stickers and categorization." (APT005)*

*"our high alert and LASA system is running very well, as we have numerous checklists in place." (DJU004)*

Regarding the management of high alert and LASA medications at the Penebel I PHC, a list of medicines has been made and marked with a sticker. High alert and LASA medicines storage are separated from other drugs, and when taking them, they are checked repeatedly before being given to the patient. The results of the

document observation in the pharmacy room shows that there was evidence of a drug checking sheet with signatures from two different officers, a prescription screening sheet, and a drug information sheet.

Based on the analysis of high risk events in the pharmaceutical service process, adverse drug events, medication errors and adverse drug reactions occupy the main order group in patient safety requiring a system approach for the management, considering the complexity of the interrelation of events between “error is a human” and a very complex pharmacotherapy process. Other factors that influence the risk are intersectoral, influenced by the types of medical services, the number of types and amounts of drugs per patient, environmental factors, workload, employee competence, leadership and so on. The systems approach aims to minimize risks and promote safety measures for the use of drugs including the related medical devices.<sup>21</sup>

### 3.3 Procedures for reducing the risk of infection

Other safety target procedures available at Penebel I PHC are: reduction of the risk of infection and procedures to reduce the risk of falling patients. Implementation of infection risk reduction procedures at Penebel I PHC, following the safety quality guidelines of Penebel I PHC such as implementing a policy of washing hands with soap properly. Penebel I PHC implemented a policy of five hand washing moments and a six-step hand washing for all staff and PHC visitors.

*“every unit normalizes hand washing using the five moment approach both before and after attending to a patient.” (KTKP001)*

*“we carry out hand washing and equipment sterilization.” (TPA009)*

There is a PHC security officer on duty to remind every officer and visitor who enters the Penebel I PHC area to wash their hands first. This shows that the activity of reducing the risk of infection through five hand washing moments and six steps of washing hands properly has been running well at the Penebel I PHC, as well as at the

dental clinic. The following is an excerpt from the informant’s statement.

*“we sterilize all equipment even if not all is processed in an autoclave.” (BSP006)*

Management of medical devices with sterilization aims to prevent the spread of infection through medical devices or to ensure that these devices are sterile and ready to use. The insterility of the tools can be dangerous for both patients and health workers themselves, as a report from Amritsar, India, which states that non-sterile surgical instruments resulted in 15 cataract patients going blind.<sup>22</sup>

### 3.4 Procedures for reducing the patient’s risk of falling

The last of the six patient safety goals is the reduction of the patient’s risk of falling. The implementation of this activity is in the ER service unit of Penebel I PHC. The emergency staff checks the general condition of the patient, makes a review in a checklist and gives an assessment in the form of a score compared to the standard. If declared at risk, the patient will be given a yellow identification bracelet before being transferred to the inpatient room. In addition, the PHC has also equipped patient beds with safety precautions, installing handrails on the patient bathroom walls and handrails on stairs. Penebel I PHC also carries out activities in the form of marking when a floor is being cleaned or is slippery. The following is the informant’s statement.

*“The general implementation in the ER is by calculating the risk score for the patient to fall, the score is small to high and if it is stated to have a risk, a yellow patient bracelet will be given, and if there is a risk of allergic reactions they are given a red bracelet.” (KTKP001, DJU004)*

*“we carry this out from the centre entrance where if the floor is wet or slippery we place a sign, make sure there are hand rails and provide other supportive measures.” (KTM002, APT005)*

The implementation of falling risk reduction can be done if the entire staff screen the patient’s risk of falling and

wherein the staff provides walking aids to patients who are at risk of falling. In addition, officers also ensure that the bed is safe, and that the markings on the wet or slippery floor are always installed.<sup>23</sup>

## 4. Methods and elements

### 4.1 Improvement of management quality, facilities and infrastructure, evidence-based planning and policy establishment

The implementation of six patient safety targets at Penebel I PHC between the system and the patient domains used several methods such as improving the quality of management and improving facilities and infrastructure. Penebel I PHC has implemented information management in accordance with PHC accreditation standards, starting with information dissemination and workshops on the types of PHC services as fulfillment of patients’ rights to clear and accurate information services. The following is an excerpt from the informant’s statement.

*“Before the implementation, this was preceded by an internal workshop and information dissemination attended by role models. After that, the formulation of priority patient safety goals along with role models, determining operational definitions and measurement processes were carried out.” (KPUS003)*

*“we carry out a patient safety simulation, if there is a new guideline we assess against this... there have been simulations of patient safety twice, because there was revisions so the first was in 2016 then in 2018, 2019 there were also follow up simulations. Because there are several additional guidelines and adjustments.” (DJU004)*

Apart from provision of information, another method implemented is the management of facilities and infrastructure that are safe, functional and supportive for patients, families, staff, visitors and the environment. Infrastructure management principles must include multidisciplinary planning including education and monitoring.

The implementation of the six patient safety goals at Penebel I PHC is also influenced by several elements



such as elements of evidence-based planning and policy establishment. In the planning element, six planning documents are needed, namely safety and security planning, hazardous materials management, emergency management, fire management, medical equipment management, and utility systems. Another related element is the policy in the form of a patient safety team decree, manuals and SOPs. The following is an excerpt from the informant's statement.

*“as an internal regulation of the PHC, we compile guidelines that comes from applicable y, translated according to the needs of the PHC and the readiness of facilities and infrastructure and staff of the PHC. Contents include patient safety goals, indicators, how to measure it.” (KPUS003)*

The internal regulation of Penebel I PHC is in accordance with the needs of the PHC as well as the readiness of facilities and infrastructure and staff of the PHC. For example, one of the contents listed in the safety guidebook is the six patient safety objectives, patient safety target indicators, measurement methods, measurement tools (checklists) and patient safety reports which are compiled bottom up by officers in each service unit. Furthermore, indicators and measuring instruments are collected by the team and discussed in a patient safety team meeting.

#### 4.2 Improved communication skills and officer cooperation

The implementation of six patient safety targets at Penebel I PHC between the domain of officers and patients used several methods such as improving communication and cooperation of officers. Communication between officers and patients using the S-BAR method has worked well between PHC staff. In accordance with the results of research on effective communication in interprofessional collaborative practices, the core competence in interprofessional collaborative practice is interprofessional communication with S-BAR in conveying important information and requires attention and fast action so that patient safety can be guaranteed and protected.<sup>24</sup>

The following is an excerpt from the informant's statement.

*“up to now communication between nurses is smooth and uses the S-BAR system.” (DJU004)*

*“all records written down in the patient records book is handed between nurses and other staff during shift handover.” (KTKP001)*

*“we have established effective communication between nurses within the patient record book, where we write the patient's condition, diagnosis, and follow up treatment steps.” (PJU007)*

Communication between officers and patients is two-way communication or feedback from patients. Communication between doctors, nurses and patients should be packaged in a form of communication that is easy for the patient to understand, especially given the characteristics of patients, most of whom are rural residents who work as farmers and traders. The importance of information conveyed from the doctor to the patient includes the procedure to be performed, the risks that may occur, the benefits of the action to be performed, and the alternatives of actions that can be performed.<sup>25</sup>

The implementation of patient safety measures cannot be carried out only by the patient safety team or health workers with the patient concerned and the supporting technology, but must involve all parts of the organization, namely in the form of management support and good staff cooperation.<sup>26</sup>

The limitation of this study is that generalization will be limited to settings similar to Penebel I PHC because the information obtained from informants is subjective, meaning only for the individual concerned and may not necessarily be used in the same case as other individuals. In addition, a researcher who is a pharmacist in the health department and an accreditation companion team as a research instrument that is very close to the research topic can cause researcher bias which can affect the validity of the internal data of the study results.

## CONCLUSION

This study has examined a provision of the patient safety at the Penebel I PHC. The finding indicated that the provision of the patient safety has been conducted in accordance to the six patient safety targets listed in the Minister of Health Regulation Number 11 Year 2017. The patient safety has been integrated into the health care system of the Penebel I PHC which is implemented in four main domains, namely health staff as service providers; community or patients as service recipients; system as a regulator in service delivery and methods and elements in implementing patient safety management services. The Penebel I PHC already has a document for implementing patient safety guidelines, which consists of a decree (SK) of the PHC leader, guidelines for implementing patient safety, and SOP in each service unit.

However, along the way, several weaknesses were still found and need to be tackled. To improve implementation of the patient safety goals, it is necessary to optimize the quality of management by adjusting the domain elements. The quality of service and patient systems, the quality of planning, policies, information systems and facilities, and infrastructure also need to be improved. Meanwhile, for the quality of implementing officers, it is necessary to increase their communication competencies as well as to enhance cooperation between officers in health services to avoid patient safety incidents.

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## AUTHOR CONTRIBUTION

AG drafted the research, collected and analyzed data and drafted manuscripts. AW and DL developed research concepts and designs, assisted in data analysis, provide suggestions, input and improved manuscripts.

## CONFLICT OF INTEREST

There is no conflict of interest.

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