

Conference Paper

## Analysis of Hospital Management Information System (SIMRS) in Purwokerto Islamic Hospital

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### ABSTRACT

Purwokerto Islamic Hospital is an Advanced Referral Health Facility that receives referrals from first-level health facilities so the hospital management system will become a very important requirement for managers, clinicians, and patients and their families. Hospital Management Information System is a system used to collect management data from a hospital, in which many installations, departments, and units are incorporated into a complete system. The Ministry of Health seven years ago has launched 7 Health Development Reforms, namely 1) revitalization of health services, 2) availability, distribution, retention, and quality of human resources, 3) seeking availability, distribution, safety, quality, effectiveness, affordability of drugs, vaccines and medical equipment, 4) Health insurance, 5) partiality to disadvantaged areas, borders and islands (DTPK) and health problem areas (DBK), 6) bureaucratic reform and 7) world-class health care. Currently, the hospital management information system in the hospital unit needs an operator to operate it. So that managerial and clinicians in accessing information systems in hospitals are also still limited. So the researchers tried to assess the application of a special hospital management information system in intensive care to explore further the advantages and disadvantages or the benefits and obstacles as well as the quality of this hospital management information system. Especially since the implementation until now SIMRS has never been evaluated. From the search results, researchers found many studies on SIMRS. After trying to sort it out, seven studies on SIMRS were taken, starting from the 2005 study to the 2018 study. Most of them used qualitative methods, there was one study in Uganda that used Mixed Methods and two studies that used quantitative (Greece and Kenya). Most of the data collection was in the form of observation and interviews, except for Greece and Kenya with questionnaires and scales, and Uganda which used both questionnaires and interviews. The results of these seven studies show that SIMRS is beneficial from various points of view. General Purpose, To analyze the application of the hospital management information system application program in the intensive care unit of RSI Purwokerto. The specific objective is to find out the benefits or improvement of service quality, the obstacles and the quality of the application program of the hospital management information system of RSI Purwokerto as well as the flow of systems and service procedures in the unit.

*Keywords: System, information, management, SIMRS, Islamic Hospital*

### Introduction

Hospital Management Information System (SIMRS) is a system that supports decision-making for the management in determining strategies to achieve the goals of hospital administration (Anggraini, 2017). Medical records are a subsystem of the hospital information system as a whole

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which has a very important role in improving the quality and services of the hospital itself. Organizing medical records that starts from the time the patient registers, gets health services until he leaves the hospital. Organizing medical records is one form of activity carried out to achieve fast, accurate, and precise services so that the information produced is more effective and efficient so that good quality management is needed (Arlin, 2016).

Organizing medical records starting from filling in until medical records are returned to the filing. Medical records provide actual information and data entry must be complete to produce correct data until the information will be submitted in the form of a report. Incorrect data results in a wastage of costs, energy, facilities, and time. Therefore, efforts should be made so that data errors can be reduced as small as possible. Hospitals in Indonesia are obligated to record and report on all activities of the operation of Hospital 2 as stipulated in Article 52 paragraph (1) of Law Number 44 of 2009 concerning Hospitals. The hospital management information system (SIMRS) used in a hospital must provide convenience in operations and can overcome the constraints of patient service in the hospital (Dinata et al., 2020).

Hospital management requires fast and accurate data management to create quality services. Manual data management has many weaknesses, in addition to taking a long time, its accuracy is also not acceptable because the possibility of errors is very large. Information technology support will support the work of managing data manually, which can be replaced with an information system using a computer. In addition to being faster and easier, data management also becomes more accurate because the possibility of errors can be minimized (Altamira, 2015; Eryando et al., 2017). Evaluation of the implementation of SIMRS must be carried out because the evaluation will assess or measure the benefits obtained from implementing SIMRS and to find potential problems that are being faced by users and organizations. The results of the evaluation can be used as a reference to improve or perfect the SIMRS and develop the potential that still exists, so that SIMRS becomes better, perfect and can support the goals, vision, and mission of the organization (Handayani et al., 2018).

### Material and Methods

By conducting interviews with the IT and SIMRS sections at the Purwokerto Islamic Hospital, the results of this SIMRS were applied based on regulations: (1) Law no. 44 of 2009 concerning Hospitals. Each hospital is required to record and report on all hospital operations in the form of a hospital management information system; (2) Permenkes No. 82 of 2013 concerning SIMRS; Every hospital is required to run SIMRS, the SIMRS used must be Open Source. The following is a display of SIMRS Islamic Hospital Purwokerto.



Figure 1. Pictures Of SIMRS RSI Purwokerto (The application is available in the Play store and can use for the patient for online registration to booking registration before coming to the hospital)

Online registration is a registration that can be done wherever the patient or the family is using a cell phone through the Islamic Hospital application Purwokerto then the patient takes a screenshot of the registration booking that gets carried out one day before the patient gets examination services by a doctor. Results of interviews and SWOT analysis of online registration Most of the patients already know and some patients don't find out about online registration.

The benefits of registration online is:

1. Patients do not have to take poly queue numbers,
2. Practical and can be done by everyone (time efficient and effective in the queue);
3. Online registration can be done anywhere.

The disadvantages of online registration are:

1. People who have not been able to use the registration application online have difficulty registering patients;
2. Online registration only gets a queue number at the polyclinic, not yet developed a queue at registration.
3. Can be used for registration with fictitious data.

The obstacles experienced during the online registration process include:

1. The patient forgets the leading zero before entering the medical record number;
2. The NIK of the patient is incomplete.

Table 1. Programs to be achieved from SIMRS (development process)

The year 2018	The year 2019	The year 2020	The year 2021
Online Registration	Evaluation and re-finement continuously	Enterprise risk Management	enterprise risk management

#### BPJS SEP Bridging

Source: results of interviews with the IT department at RSI Purwokerto

### Results and Discussion

Identification using SWOT analysis:

1. Strengths Purwokerto Islamic Hospital is a hospital located in the Banyumas district. Strategically located in the city center. Transportation to Purwokerto Islamic Hospital RSUM is easy to reach. Outpatients per day are between 300-500 patients. To make it easier for patients, the hospital provides an online registration system for outpatients. Patients can register online through the Purwokerto Islamic Hospital application. Registering online has the opportunity to get an examination quota at the poly.
2. Weaknesses (weaknesses) Purwokerto Islamic Hospital has an online registration system for outpatients. Socialization in the community is not perfect, so there are still many people who do not know. And online registration is only limited to getting a queue number at the poly, but you can't get a number at registration.
3. Opportunities Patients are satisfied with the facilities provided by the Purwokerto Islamic Hospital. The patient will give a good assessment and will visit again if he needs help for treatment of the health of the patient and family.
4. Threats (threats) SIMRS is still in transition for the second SIMRS change because there are still many obstacles from the first SIMRS.

Purwokerto Islamic Hospital to increase customer satisfaction provides solutions through online registration for outpatients. From online registration, there are still obstacles that occur.

Hospitals must intensify socialization to the community, by providing promotions where patients are waiting for examination at the polyclinic even though the banner has been installed. Hospitals must conduct comparative studies at other similar hospitals to see online registration

applications so that service to patients is even better. The online registration application is not only a queue at the polyclinic but a queue of patients getting registration.

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## Conclusion

By conducting interviews with the IT department and other units at RSI Purwokerto. It can be concluded that their work effectiveness has increased since using the SIMRS application at RSI Purwokerto. Although manual activities are still carried out to anticipate if there is a power outage and if manual reports are needed for monthly and annual reports. As proof of readiness for transition from procedures at RSI, a Standard Procedure was made to support SIMRS activities at RSI Purwokerto.

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