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Maintaining Radiology Quality with National Hospital Accreditation Standards

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A B S T R A C T

Radiology quality assurance is an important method to ensure the quality of radiology services provided by hospitals. One of the processes used to assess and review quality assurance systems in hospitals, including radiology services, is hospital accreditation. This article intends to explore radiology quality assurance activities during the hospital accreditation process in Indonesia. In this article, a literature study is used to gather data from several highly reputable sources from scientific journals, accreditation standards, and government publications. Research findings show that hospital accreditation is critical for radiology quality assurance. Hospitals that follow accreditation procedures must meet certain standards applied by the Ministry of Health. This process ensures that the hospital adheres to best practices in surgery and radiology services and that the quality of these services is maintained regularly. Hospital accreditation is a successful technique in radiological quality assurance efforts. Hospitals can improve radiology service standards and provide higher quality assurance for patients and the public by following certification procedures. It is thought that this research will help hospitals and other stakeholders, including professional organizations determine a more effective radiology quality assurance system in the future

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INTRODUCTION

Radiology is a branch of medical science that uses radiation to diagnose and treat with imaging techniques and the use of radiation with X-rays, ultrasound waves, electromagnetic waves, and radioactive substances (Bapeten, 2020). Radiology has an important role in the world of medicine and health services (Rahmawati & Hartono, 2021), in terms of diagnosing for disease management. The quality of radiology services is very important because accurate radiology results can affect diagnosis, treatment planning, and appropriate medical treatment. Radiology is an important part of medical practice to support diagnosis, treatment actions, or treatment plans as well as evaluation and control after recovery from the disease (Elvina, 2018). To ensure the quality of radiology services, a mechanism is needed that allows for continuous evaluation and improvement in the implementation of these services. One form of evaluation is through the hospital accreditation mechanism.

Hospital accreditation has become a favorite tool in improving the quality of health services. The hospital accreditation survey process is designed to improve the continuous improvement of hospital quality and safety culture, so that it can increase public trust in hospitals, regardless of class, prioritizing service quality, safety and protecting the community (Ho et al., 2014; Pomey et al., 2004). Hospital accreditation is an ongoing and ongoing process, which is periodically evaluated by an independent body established by the Ministry of Health (KARS, 2014). Maintaining the quality of hospital services so that they continue is not an easy thing (Ziaee & Bologna, 2014) requires commitment and seriousness in me; carry it out. Maintaining quality is a systematic process between the involvement and teamwork of all work units that is continuous and requires leadership skills to keep the momentum of improvement ongoing (Al-Assaf, 2009).

Hospital accreditation is an independent evaluation process carried out by an accreditation body that has been appointed by the Ministry of Health of the Republic of Indonesia to assess the extent to which hospitals comply with the health service standards that have been set. The accreditation process focuses on assessing aspects that include hospital management, facilities and infrastructure, quality of service, patient safety, education and training of medical personnel, and compliance with regulations and safety standards. The accreditation process aims to improve the quality of hospital services and create a safe and quality environment for patients (Kemenkes, 2022). Safe and quality health services in hospitals have become the main hope and goal of the community or patients, health workers, hospital managers, and owners as well as regulators (Nur Hikmah et al., 2023).

In Law number 44 of 2009 concerning Hospitals the third part of article 40 states that as an effort to improve the quality of hospital services, accreditation must be carried out routinely at least once every 3 (three) years (Kemenkes, 2009) and in the 2022 Ministry of Health Hospital Accreditation Standards (STARKES 2022) to every 4 years. In the hospital, one of the objects evaluated is related to radiology services. In radiology, the hospital accreditation process is crucial to ensure the quality of radiology services provided by hospitals. Accreditation in radiology to ensure that services are provided following quality standards and focus on patient safety. In STARKES 2022, radiology is included in the patient-focused service group on the Patient Assessment (PP) standard (Kemenkes, 2022).

Efforts to ensure radiology quality through hospital accreditation will provide insight into the extent of the effectiveness and impact of the accreditation process in improving the quality of radiology services. It will also provide an overview of the challenges faced by hospitals in achieving accreditation for their radiology units, as well as strategies or steps that can be taken to improve the quality of services provided so that radiology professionals, hospital management, and other related parties can understand the importance of the accreditation process in ensuring the quality of radiology services. And accreditation can be used as a basis to improve policies and practices in the implementation of radiology services in hospitals, to be able to provide better and safer services for patients. In radiology, this task and responsibility is one of the duties of the radiographer. Radiographers as one of the frontlines in serving patients are needed by hospitals and the community (Sokhibi et al., 2023). Salah satu alat yang menjadi objek penilaiannya adalah CT Scan. CT Scan is an examination tool using radiation that utilizes a computer to reconstruct data obtained from several detector circuits that receive X-ray beams that are subjected to absorption of a weakened amount of energy (Arief Oesmanto et al., 2024). And other equipment that uses radiation is related to the issue of radiation utilization and its safety. Another piece of equipment is MRI (Magnetic Resonance Imaging). MRI will be able to visualize the internal structure of the human body organs in detail (Putri et al., 2021). A routine examination of an MRI is the brain. Thus, MRI is one of the objects of Accreditation related to security and safety issues during the examination.

LITERATURE REVIEW

Ministry of Health Hospital Accreditation Standards 2022 (Kemenkes, 2022)

Accreditation is a recognition of the quality of hospital services after an assessment is carried out that the hospital has met the accreditation standards approved by the Government.

The objectives of the Accreditation are: 1). to improve the quality and safety of patients in hospitals, 2). Becoming a reference for independent hospitals and hospital accreditation institutions in the implementation of hospital accreditation and 3). It is a reference for the Ministry of Health, provincial health offices, and district/city health offices in fostering and evaluating the quality and safety of patients in hospitals. Hospital Accreditation Standards are grouped according to the important functions that are common in hospital organizations. Standards are grouped according to functions related to the provision of services for patients (good clinical governance) and efforts to create safe, effective, and well-managed hospital organizations (good corporate governance).

After an accreditation survey was conducted, based on the fulfillment of accreditation standards, the achievements were categorized into: 1). Plenary Category if all Chapters in the accreditation standard received a minimum score of 80%, 2). The Main Category of 12 – 15 Chapters received a score of 80% and the Patient Safety Target Chapter (SKP) received a minimum score of 80%. For hospitals other than teaching/teaching hospitals, graduation is 12-14 chapters and SKP chapters are at least 80%. 3). Intermediate Category If 8 to 11 Chapters get a minimum score of 80% and SKP Chapters get a minimum score of 70% and are declared 4). Not accredited if less than 8 Chapters get a minimum score of 80%; and/or, the SKP Chapter gets a score of less than 70%. This shows that the standard concentration of this accreditation focuses on patient safety and continuous quality improvement.

Patient Assessment (PP)

Radiology is part of a patient-focused standards group at STARKES 2022, specifically on patient assessment standards (PP). Both outpatient and inpatient services involve a dynamic, ongoing process called patient evaluation. The three main procedures consist of patient assessment, including: 1). Collecting information and statistics about the patient's medical history, social status, and physical and mental characteristics. Identify patient needs for healthcare through data and information analysis, including laboratory test results, diagnostic imaging, and physiological monitoring. 3). To meet the needs of the selected patient, develop a therapy plan. The purpose of the assessment is to identify the therapies, therapies, and services that best suit the patient's initial and ongoing needs. In this Patient Assessment Standard, it focuses on 1). Initial assessment of patients (PP 1), 2). Patient reassessment (PP 2), 3). Laboratory services and blood services (PP 3), and 4). Clinical radiology services (PP 4).

Clinical Radiology Service Standards (PP 4)

In STARKES 2022, clinical radiology standards have several standards, including:

1. PP Standard 4

Clinical radiology services set regulations for clinical radiology services in hospitals.

2. PP 4.1 Standard

The Hospital appoints a competent and authorized person, responsible for managing RIR services.

3. PP 4.2 Standard

All clinical radiology staff have the education, training, qualifications, and experience required to perform the examination.

4. PP 4.3 Standard

The hospital establishes a time frame for the completion of regular clinical radiology examinations and cito.

5. PP 4.4 Standard

X-ray film and other materials are available regularly.

6. PP 4.5 Standard

Hospitals establish quality control programs, and implement, validate, and document.

Radiology Quality Assurance

To ensure the quality of radiology services provided by the hospital. Radiology quality assurance includes technical, interpretation, and safety aspects in the implementation of radiology services. There are at least 5 things that can be discussed for radiology quality assurance related to the implementation of this accreditation, including: 1). Continuous Improvement in Radiology Services, 2). The effect of hospital accreditation on radiology quality assurance, 3). Challenges and obstacles in radiology accreditation and 4). The success of accreditation cannot be separated from the support of management and the commitment of its staff.

METHODOLOGY

The method used is literature study, by collecting data from various reliable sources, including scientific journals, accreditation guidelines, and related government publications. This article highlights various aspects relevant to radiology quality assurance, including compliance with radiology standard operating procedures (SOPs), qualifications and certification of radiology officers, the use of advanced and up-to-date equipment, and radiation protection for patients and healthcare workers, especially radiographers. By using a thematic analysis approach to identify patterns and key themes emerging from the data to understand the role of hospital accreditation in radiology quality assurance.

RESULTS AND DISCUSSION

To improve the quality of hospital services, accreditation for hospitals is a forum for dialogue and interaction between hospitals and accreditation organizations.

In accreditation, there is a self-assessment mechanism so that hospitals can monitor and find out if the services provided to the community against their standards are in substandard conditions so that they need to be improved or above the standard so that they need to be maintained and improved again as excellent services. Accreditation is also a tool for negotiating with health insurance companies because the services provided have been standardized. From the business side, accreditation can also be used as hospital branding, increasing the image and trust in hospitals so that it can be used as a tool to market to the community and be a guarantee of the services provided (Kusbaryanto, 2010).

Hospital services that have always been one of the focuses of evaluation and monitoring of accreditation standards are radiology services because in radiology patient safety evaluation and continuous improvement are in it. To ensure radiology quality through the 2022 Hospital Accreditation Standards, several important findings were obtained related to the role of hospital accreditation in improving radiology quality assurance.

Continuous Improvement in Radiology Services

Hospital accreditation can contribute to promoting continuous improvement in quality radiology services, timely radiology services which are currently a routine need and demand for quality services and can be practically achieved by regular monitoring of quality assurance programs (Kumari B et al., 2021). Through an evaluation conducted by the Independent Accreditation Provider (LIPA) (Kemenkes, 2021), Hospitals can recognize areas where there are deficiencies in compliance with quality and safety standards. This provides an opportunity for hospitals to implement continuous improvement and improve the quality of radiology services. Including in the radiology unit in hospitals that have successfully achieved accreditation have implemented improvements in their radiology procedures, policies, and infrastructure to comply with the quality standards set by the Ministry of Health through STARKES 2022.

The Effect of Hospital Accreditation on Radiology Quality Assurance

International experts continue to debate vigorously whether the accreditation system is useful and efficient in improving the quality of services. Studies vary in their conclusions about the effectiveness of accreditation in improving quality (Greenfield et al., 2012). Although the researchers agree that accreditation is one of the most potential interventions for improving the quality of health services (Hussein et al., 2021). Field reviews show that hospitals that have undergone an accreditation process have a higher level of radiology quality assurance than non-accredited hospitals (Chanafie et al., 2022; Phonna et al., 2021). This is because the accreditation process helps identify weaknesses in the radiology service system and encourages continuous improvement, thereby improving the overall quality of radiology services. It also emphasizes the importance of the accreditation process as a mechanism to ensure quality standards in radiology services. All of these processes and programs need to be

implemented to ensure high service quality and good service delivery to customers in addition to improving financial performance. The increased cost of implementing a quality program (accreditation) in a department can be offset by an increase in patient revenue or cost efficiency elsewhere (Hoe, 2007).

Challenges and Obstacles in Radiology Accreditation

Accreditation can improve the standard of care, but it requires some technical strategy. The most frequent reason for ineffective quality initiation is the failure to change people's behavior and attitudes. The quality of business services must be continuously improved, which requires a change in mindset and a strong sense of ownership. Given the difficulties in achieving hospital accreditation, various supporting initiatives are needed to integrate accreditation into organizational structures and functions. Setting and assessing against standards presents most technical problems while implementing the necessary adjustments presents more social and managerial difficulties (Zarifraftar & Aryankhesal, 2016).

There are several challenges and obstacles to achieving accreditation also occur in the hospital radiology unit (Madan M, 2015). Some of them are:

1. Staff involvement and accreditation is a shared responsibility from upstream to downstream, the biggest challenge of accreditation is to involve all parties in its implementation. Especially the medical group in hospitals. Accreditation must involve doctors, nursing teams, human resources, quality management, Engineering, Microbiology, General services, registration, medical records, Pharmacy, and others. In its implementation, a core team must be formed that represents the representation of all parts. The core team conducts a detailed gap analysis across the various departments for the objective elements of the accreditation standards carried out by the core team together with the functional head. The core team must have the full support of higher management to complete its tasks & achieve the desired standards. The lack of a core team can be an obstacle in the accreditation process (Brubakk et al., 2015).
2. Inconsistent process, Most of the findings in the field have inconsistencies in practice, such as not writing and practicing SPO (Operational Procedural Standards) according to its guidelines. Therefore, to maintain consistency, it is necessary to carry out internal audit actions that are carried out periodically for monitoring.
3. Unsafe environment and equipment, often expired licensing data in the field, uncalibrated tools, not routine exposure testing, TLD checks, and others in this case education and audits are the solutions to solve it.
4. Documentation irregularities, Another problem that must be solved is irregularities in documentation, often documents and quality records are incomplete so tracing time will take a relatively long time.
5. Unmonitored Staff Competencies are mainly related to licensing (STR), licensing (SIP), and certification. Updating staff skills and knowledge is one of the concerns of the accreditation process.

The success of accreditation cannot be separated from the support of management and the commitment of its staff.

The support of hospital management and the commitment of radiology staff have an important role in achieving accreditation and improving radiology quality assurance. Committed management ensures the allocation of sufficient resources for the accreditation process and provides the necessary support. Meanwhile, the commitment of radiology staff in adhering to quality standards and participating in improvement efforts is an important factor in achieving accreditation. Everyone should be aware of their specific responsibilities and functions and be able to describe the steps taken to carry out quality improvement in their work units. Staff members understand that management and service must share responsibility for improving quality and patient safety, but hospital administration must have robust processes in place to keep changes moving. It takes incentives and sanctions to keep employees up to date with change (Sunarto & Wulandari, 2021). This collaboration between staff and management is one of the factors that affect the success of quality assurance through hospital accreditation (Ratmasari, 2020). The collaboration will also be able to control hospital costs to be more effective and efficient (Taslim & Priskila, 2019).

Regarding the practical implications for hospital management and related parties in improving radiology quality assurance, it is recommended that hospitals pay more attention to the accreditation process and make continuous improvements in radiology services to achieve higher quality standards by paying attention to factors that can be done to make it successful. To improve efficiency in the implementation of the accreditation process, it is recommended to use more efficient technology and provide more intensive training to radiology staff.

CONCLUSIONS AND RECOMMENDATIONS

The hospital accreditation process plays a crucial role in improving the quality assurance of hospital services, especially in radiology. This is shown by hospitals that undergo the accreditation process have a higher level of radiology quality assurance compared to hospitals that are not accredited. The accreditation process helps identify weaknesses in the radiology service system and encourages continuous improvement to comply with the quality standards set by the accreditation body. In addition, this article reveals that hospital accreditation contributes to promoting continuous improvement in radiology services. Radiological units in hospitals that have successfully achieved accreditation have implemented improvements in their radiology procedures, policies, and infrastructure to comply with quality standards. The support of hospital management and the commitment of radiology staff are also key factors in achieving accreditation and improving radiology quality assurance.

Some things that can be recommended to improve radiology quality assurance efforts through hospital accreditation are:

1. Optimizing the Accreditation Process: Hospitals need to increase their efforts to ensure the accreditation process runs efficiently and effectively. Hospital management must provide full support and adequate allocation of resources to ensure success in the accreditation process.

2. Staff Training and Development: Hospitals need to provide more intensive training to radiology staff to improve their understanding of quality and safety standards in radiology services. By having skilled and trained staff, hospitals can achieve better accreditation and improve the quality of radiology services.
3. Implementation of Continuous Improvement: Hospitals must implement continuous improvement in radiology services based on accreditation results. It is important to conduct regular evaluations and monitoring of compliance with quality standards and identify areas for improvement.
4. Collaboration with Accreditation Bodies: Hospitals need to establish good cooperation with accreditation bodies to get better feedback and guidance in the accreditation process. Involving an accreditation body in planning and evaluation can increase success in achieving accreditation.
5. More Efficient Use of Technology: The use of advanced and efficient technology in radiology services can help improve accuracy and efficiency in the diagnostic process and improve the overall quality of radiology services.

FURTHER STUDY

The limitation of this study is that it is still in general in its discussion, not discussing operational aspects in the field. As a result, recommendations for further research center more on how certification affects services rendered in the field, particularly in an attempt to enhance services by involving patients as assessors.

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