Differences in Hospital Accreditation Assessment Across National Tuberculosis Programs: A Narrative Review

Awal Safar[1], Puput Oktamianti[2]

1. [1]Kajian Administrasi Rumah Sakit, Departemen Administrasi Kebijakan Kesehatan, Fakultas Kesehatan Masyarakat, Universitas Indonesia, Depok, Indonesia
2. [2]Departemen Administrasi Kebijakan Kesehatan, Fakultas Kesehatan Masyarakat, Universitas Indonesia, Depok, Indonesia

awalsafarm@gmail.com

Abstract

Background: Hospital accreditation provides guidelines for implementing national program standards related to the reduction of tuberculosis morbidity. However, each accreditation body has a different interpretation of the established standards, resulting in variations in the assessment elements across these bodies.
Objective: This research aims to identify differences in hospital accreditation institutions in assessing tuberculosis control programs, facilities and infrastructure provision, and services in the effort to control tuberculosis risk factors according to regulations.
Method: The method used in this research is a narrative review method.
Results: This study found that clear differences in approaches are evident among various accreditation institutions in evaluating factors related to improving tuberculosis services.
Conclusion: Accreditation institutions differ in assessing the improvement of TB services. Their focus includes facilities, clinical practices, drug procurement, MDR-TB services, and case recording. There is variation in assessment from compliance with standards to field practice implementation. Evaluation methods also vary such as observation, document examination, and interviews. A holistic approach is important for assessing the quality of TB services at hospitals by considering various aspects.
Keywords: Accreditation , Hospitals , Tuberculosis

Abstrak

Latar Belakang: *Akreditasi rumah sakit memberikan panduan implementasi standar program nasional terkait penurunan angka kesakitan tuberkulosis. Namun, setiap lembaga akreditasi memiliki interpretasi yang berbeda dalam memahami standar yang telah ditetapkan sehingga terdapat perbedaan elemen penilaian dari tiap lembaga tersebut.*
Tujuan: *Penelitian ini bertujuan mengetahui perbedaan seluruh lembaga akreditasi rumah sakit dalam pelaksanaan penilaian program penanggulangan, penyediaan sarana dan prasarana pelayanan, dan pelayanan dalam upaya pengendalian faktor risiko tuberkulosis sesuai peraturan perundang-undangan*
Metode: *Metode yang digunakan dalam penelitian ini adalah metode narrative review.*
Hasil: *penelitian ini menemukan bahwa perbedaan pendekatan terlihat jelas di antara berbagai lembaga akreditasi dalam mengevaluasi faktor-faktor yang terkait dengan peningkatan pelayanan tuberkulosis (TB).*
Kesimpulan: *lembaga akreditasi memiliki perbedaan dalam mengevaluasi peningkatan pelayanan TB. Fokusnya mencakup fasilitas, praktik klinis, pengadaan obat, layanan TB MDR, dan pencatatan kasus. Ada variasi dalam penilaian, dari kepatuhan pada standar hingga implementasi praktik di lapangan. Metode evaluasinya juga beragam, seperti observasi, pemeriksaan dokumen, dan wawancara. Pendekatan holistik penting dalam menilai kualitas layanan TB di rumah sakit dengan mempertimbangkan berbagai aspek..*
Kata kunci : *Akreditasi, Rumah sakit, Tuberkulosis*

INTRODUCTION

Tuberculosis remains a public health concern worldwide, especially in developing countries. According to WHO data in 2019, the top five countries with the highest number of TB cases are India, China, Indonesia, the Philippines and Pakistan. (Tsarwah Aulia, Surahman Batara and Amelia, 2020; Aviana et al., 2021; Djarang et al., 2023). Jakarta, as the capital of Indonesia, is one of the provinces with the highest tuberculosis prevalence in the country, ranking second along with Papua. Meanwhile, Bali and Yogyakarta have a lower risk compared to other provinces [4], [5]. In 2026, tuberculosis still ranks as the tenth leading cause of death worldwide, accounting for approximately 1.3 million deaths. According to WHO in 2018, Indonesia was ranked third in 2017 with the highest number of TB cases, representing about 8% of all TB cases globally [6], [7]. In 2020, there were approximately 10 million TB sufferers globally, resulting in around 1.2 million deaths annually due to this disease [1]. Furthermore, another challenge arises with the increasing incidence of MDR-TB [8].

One of the indicators used to assess the success of TB treatment is the treatment success rate for TB cases. The WHO standard for treatment success rate is 85%, which subsequently becomes the national TB control program's benchmark for success [6]. The target of the TB control program is to achieve a minimum discovery of 70% new BTA-positive TB patients and cure 85% of all these patients while maintaining this rate. This target is expected to reduce the prevalence and mortality rates due to TB by half in 2010 compared to 1990, and reach the Millennium Development Goals by 2015 [9]. With the conclusion of the MDGs in 2015, this era has been replaced by the adoption of Sustainable Development Goals (SDGs) by many countries including Indonesia. Under SDGs era, STOP TB previously supported by MDGs is now replaced with END TB. Despite Indonesia having a national TB control system outlined in the latest 2014 guidelines, better integration with END TB is needed to achieve optimal tuberculosis control under SDGs targets. [10]. Indonesia has achieved a treatment success rate for TB since 2006. This was followed by further successes in 2017, with the treatment success rate reaching 85.1%, comprising of 43.1% of patients completing their treatment and 42% of TB patients being cured after treatment [6].

Globally, efforts have been made by the WHO to combat TB, and in Indonesia itself, a TB control program has been established through the implementation of TB control policies. Apart from various policies such as Presidential Regulations and Ministry of Health Regulations, Minister of Health Regulation Number HK.01.07/MENKES/1128/2022 on Hospital Accreditation Standards included in Prognas 2 stipulates that hospitals are obligated to implement tuberculosis control programs. Tuberculosis control activities include health promotion, tuberculosis surveillance, risk factor management, case detection and management, immunization provision, and preventive drug administration. [1], [11]. To carry out these activities, hospitals are expected to be able to form a team or committee to implement the Hospital Pulmonary TB program [11].

Accreditation bodies are independent institutions that conduct assessments in hospitals to ensure that they meet the established healthcare service standards [11]. Currently, there are six independent institutions that accredit hospitals with various acronyms that are almost similar, namely KARS, LAFKI, LARS-DHP, LARS, LAM-KPRS and LARSI [12]. Every accreditation institutions often provides accreditation guidance so that hospitals can consult directly on hospital challenges and enhance confidence to be more prepared for assessment [13]. Each hospital leader has the freedom to choose an institution to evaluate the led hospital. One crucial aspect that needs attention in selecting an accreditation institution, according to The International Society for Quality in Healthcare (ISQua), an international community ensuring the improvement of patient quality and safety, is the process management aspect of surveys and relationships with hospital management. The chosen accreditation

institutions should be able to provide comprehensive information about the offered accreditation assessment programs and conduct strict and transparent surveys based on competence-based selection criteria and requirements from accredited institutions as stipulated by the decision of Republic of Indonesia's Minister of Health [12]. In the context of accreditation assessment related to TB, differences in the assessment elements between accreditation bodies and national programs can influence overall efforts in tackling TB.

The national accreditation assessment framework outlined in the Hospital Accreditation Standards of the Ministry of Health of the Republic of Indonesia serves as the primary foundation for evaluating healthcare service quality, including in the context of TB management [9], [11], [14], [15]. A national program concerning TB has established its own guidelines and standards that reflect efforts in preventing, diagnosing, and treating TB according to local conditions and global direction [15]. However, in practice, there is often a discrepancy between the assessment criteria used by accreditation bodies and the national TB-related program.

To provide a clearer picture, a comparative table of assessment between national and six major accreditation bodies can be prepared. This table will cover various aspects of assessment, such as infrastructure, medical staff, TB testing procedures, patient data management, and TB prevention services in hospital environments. Through this table, significant differences between national assessments and accreditation body assessments will be apparent,and can serve as the basis for further discussion.

The discussion will focus on each distinct assessment point between the national program and the accreditation agency, emphasizing its relevance to the theory and practice of TB management. Each assessment element will be evaluated to understand if its approach aligns with global guidelines in TB handling, as well as its implications for the quality of healthcare services provided by the respective hospital. Furthermore, it will also be explored whether these different assessment elements are suitable criteria in the hospital accreditation process, considering their impact on comprehensive TB control efforts.

By exploring the differences in assessment elements between accreditation institutions and national TB-related programs, this study aims to provide a deeper insight into the challenges in assessing the quality of TB-related healthcare services. The expected outcome of this research is to contribute to improving the hospital accreditation process in the context of TB management, thereby enhancing overall effectiveness and efficiency in combating TB.

METHOD

The study was conducted through a literature review and analysis of documents related to tuberculosis control standards in hospital accreditation. The differences in the involvement of hospitals in the national TB program across different accreditation bodies were also reviewed, along with an analysis and identification of differences in indicators for each accreditation body. The relevance of the documents to the research problem and objectives was determined, with a primary focus on assessment elements within hospital accreditation survey instruments for national TB control components. Furthermore, guidelines for accreditation assessment were gathered from six accreditation bodies: KARS, LARS DHP, LARSI, LAM KPRS, LAFKI, and LARS; as well as Hospital Accreditation Standards Guidelines from the Indonesian Ministry of Health. However, there was difficulty finding literature on the accreditation guidelines from the LARS institution which prevented its inclusion in this study. Other relevant literature was included to support discussions related to this study. These documents were obtained through general online searches using keywords such as "Tuberculosis" or "Tuberculosis in hospital accreditation" or "differences in indicators among hospital

accrediting agencies". The search and document review were conducted between December 2023 and May 2024.

RESULT AND DISCUSSION

Accreditation of Hospitals in Relation to Tuberculosis Control in Indonesia

Health service quality can be assessed from two perspectives, namely the provider's perspective and that of the users, especially patients. From the provider's perspective, health services are considered to be of high quality if clinical service standards are consistently implemented. From the user's perspective, the quality of health services is measured by how well patient needs, rights, and expectations are met. What about the quality of Tuberculosis services in hospitals in Indonesia? Since the implementation of national policies such as Directly Observed Treatment Short-course (DOTS) and International Standard for Tuberculosis Care (ISTC) in Indonesian hospitals around 2003, TB service quality in hospitals has remained a significant challenge. In 2007 and 2009, Utarini *et al*., identified issues with ISTC compliance in 41 hospitals across Indonesia. A preliminary report from research conducted by Mahendradhata *et al*., in 2013 across five hospitals in Yogyakarta and Jakarta showed that adherence to ISTC standards was relatively consistent with findings reported by Utarini *et al.,* back in 2007-2009 This presents a concerning reality [16].

Guidelines for the Prevention and Control of Tuberculosis Infection in health care facilities have been issued by the Ministry of Health in 2012. Policies related to the implementation of TB infection prevention and control in health care facilities have also been established in Ministerial Regulation No. 67/2016 concerning TB control. The aim of tuberculosis infection prevention and control program is to reduce the risk of TB transmission and protect healthcare workers, visitors, as well as patients from TB transmission. This program is conducted based on four pillars: managerial control, administrative control, environmental control, and control using Personal Protective Equipment (PPE) [10], [17].

Efforts to improve hospital compliance with ISTC implementation have indeed been pioneered, such as the inclusion of ISTC and DOTS strategies in hospital accreditation instruments. To carry out tuberculosis control programs in hospitals, including monitoring and evaluation through activities such as health promotion, tuberculosis surveillance, risk factor control, detection and treatment of TB cases, immunization administration and preventive care; hospitals must [15]:

a. Implementing a tuberculosis control program that includes health promotion activities, tuberculosis surveillance, risk factor management, detection and treatment of tuberculosis cases, as well as providing immunization and preventive medication in accordance with applicable regulations.
b. Providing resources for the management and control of tuberculosis.
c. Providing facilities and infrastructure for tuberculosis services in accordance with applicable regulations.
d. Carrying out tuberculosis services and implementing efforts to control tuberculosis risk factors in accordance with applicable regulations.

In order to reduce the incidence of tuberculosis, hospitals implement a TB control program in accordance with Prognas 2 Standards. The purpose and objectives of Prognas 2 are aimed at decreasing the morbidity, mortality, and recording of TB cases, as well as preventing transmission and drug resistance. This is achieved by prioritizing promotive, preventive, curative, and rehabilitative aspects in efforts to protect public health. Hospital activities include health promotion, TB surveillance, risk factor control, case finding and management of TB cases, immunization administration, and provision of preventive medication. To carry out this program effectively, hospitals may establish a team or committee for the implementation of the TB program [11], [14].

When providing care for pulmonary TB patients and the TB program at the hospital, Standard Prognas 2.1 stipulates that the hospital must

provide facilities and infrastructure that meet the requirements according to the Pulmonary Tuberculosis Service Guidelines. This includes having outpatient rooms, inpatient wards, and sputum specimen collection rooms that adhere to tuberculosis infection prevention and control guidelines [11], [14].

Hospitals have also provided TB services and implemented efforts to control TB risk factors in accordance with the Prognas Standard 2.2. This includes medical staff compliance with clinical practice guidelines for TB, provision of anti-TB drugs, care for cases of drug-resistant TB, as well as recording and reporting of TB cases in accordance with applicable regulations [11], [14].
Assessment elements: There is a space for outpatient services that meets the guidelines for tuberculosis infection prevention and control.

From comparing the assessment elements related to the availability of outpatient care space that meets the guidelines for tuberculosis infection prevention and control from each accreditation institution, it can be concluded as follows:

1. **LARS DHP**: Assessment is conducted by evaluating the availability of outpatient facilities and ensuring that their implementation complies with the established Infection Prevention and Control (IPC)/PPI standards. The assessment focuses more on the alignment of facilities with the set standards.
2. **LARSI**: Assessment is conducted by observing evidence showing that the hospital has provided outpatient care facilities in accordance with tuberculosis infection prevention and control guidelines. Additionally, interviews are conducted with relevant parties such as the Head of the service unit, TB Team, and PPI to ensure compliance with applicable guidelines.
3. **KARS**: Assessment is conducted by observing the outpatient clinic or polyclinic that has been provided and ensuring its compliance with the PPI guidelines for tuberculosis. Interviews are also carried out with those involved in providing the service, such as the Chairperson/Member of the Pulmonary TB Team and Head/Staff of outpatient services to ensure alignment with the guidelines.
4. **LAM KPRS**: Assessment is conducted by observing the outpatient TB care space and ensuring that it complies with the PPI guidelines. This emphasizes direct observation of adherence to the applicable guidelines.
5. **LAFKI**: Assessment is conducted to evaluate the conformity of outpatient care services with the guidelines for tuberculosis infection prevention and control. The foundational documents or guides that underpin the services are also assessed to ensure compliance.

From this comparison, it can be concluded that each accreditation body has a slightly different approach in evaluating the availability of outpatient care facilities that meet the guidelines for tuberculosis infection prevention and control. Some organizations emphasize compliance with specific standards more than others, which prioritize the implementation of practices.

To prevent and control infections transmitted via airborne routes in outpatient settings where aerosol-generating procedures are performed, it is essential to ensure that the natural ventilation achieves a minimum average ventilation rate per hour of 60/l/s/patient for general ward and outpatient clinic areas [18]. Control of air flow direction can be achieved by creating negative pressure, and a well-designed ventilation system is required. However, natural ventilation, such as open windows, may suffice to provide adequate airflow even when mechanical ventilation is not available. Every ventilation system should be monitored and maintained periodically. If the ventilation is inadequate, HEPA filters or UVGI can be used as additional measures. Personal protection provides additional benefits in TB prevention. Users should select certified respirators [19].
Assessment elements: If a hospital provides inpatient care for adult pulmonary tuberculosis patients, the hospital must have an inpatient ward that complies with the guidelines for preventing and controlling tuberculosis infection.

From comparing the assessment criteria of each accreditation body regarding the availability of inpatient facilities that comply with tuberculosis infection prevention and control guidelines, there are several differences:

1. **LARS DHP**: The focus is on the availability of inpatient TB rooms that meet PPI standards and maintain negative pressure. This indicates that the institution considers not only the cleanliness of inpatient rooms but also air sterilization to prevent TB transmission.
2. **LARSI**: Conducting observations and interviews to ensure that the hospital has inpatient facilities that comply with TB infection prevention and control guidelines. More emphasis is placed on implementing the guidelines in hospital practice.
3. **KARS**: Checking the dedicated hospital wards for pulmonary tuberculosis patients that must adhere to TB infection control guidelines. The main focus is on compliance with PPI standards to prevent the spread of TB infection.
4. **LAM KPRS**: It is stated that the inpatient TB care service area must comply with the PPI TB guidelines. However, there is no detailed explanation of how the assessment is conducted or what constitutes the focus of evaluation.
5. **LAFKI**: It is crucial for hospitals to have inpatient facilities that adhere to the guidelines for tuberculosis infection prevention and control, specifically for adult patients. Additionally, it is imperative for hospitals to have written protocols or guidance related to the inpatient care of TB patients.

From this comparison, it is evident that each accreditation body has a slightly different approach in assessing the availability of inpatient facilities that adhere to TB infection prevention and control guidelines, ranging from focusing on compliance with specific standards to the implementation of practices within inpatient settings.

The layout of pulmonary tuberculosis treatment rooms should facilitate efficient user circulation. Access to TB treatment areas should be via a double-loaded corridor with only one connecting pathway, and access to infectious TB treatment spaces should be restricted to doctors, nurses, and contagious patients. The placement of TB treatment zones near medical service areas should accommodate the separation of contagious and non-contagious patients. User comfort in TB treatment spaces should align with patient care needs such as adequate sunlight exposure [20]. The first recommendation in the WHO Guidelines for TB Infection Control regarding room ventilation for facilities that use natural ventilation is to ensure that a minimum average ventilation rate per hour is achieved, which is 160 l/s/patient for rooms requiring airborne precautions (with the lowest ventilation rate being 80 l/s/patient), for example: MDR-TB wards, and 2.5 l/s for corridors/paths traveled temporarily by patients. If, under certain circumstances, there are patients who have to be treated in hospital corridors, the same provisions apply as for airborne precaution rooms or general care areas. Room design should take into account fluctuations in the magnitude of ventilation rates. If natural ventilation alone cannot guarantee adequate standard-compliant ventilations rates as mentioned above, mixed-mode ventilation should be used further [18].

The second WHO recommendation states that the design of natural ventilation in hospitals needs to consider that the airflow should move air from the source of infection to areas where adequate air dilution occurs, and preferably towards the outside of the building. In rooms where procedures generating aerosols containing potentially infectious pathogens are performed, natural ventilation should at least follow the first recommendation, while if infectious agents are transmitted via airborne routes, they should adhere to both the first and second recommendations [18].

Assessment elements: There is a designated area for collecting sputum specimens that meets the

guidelines for the prevention and control of tuberculosis infection.

From comparing the assessment elements related to the availability of sputum specimen collection space that meets tuberculosis infection prevention and control guidelines at each accredited institution, several differences can be observed:

1. **LARS DHP**: This institution emphasizes the importance of having a sputum specimen collection area that complies with PPI standards. This indicates that the institution pays attention not only to the cleanliness aspect of the room but also to specimen collection procedures in accordance with guidelines for preventing TB infection transmission.
2. **LARSI**: Conducting observations and interviews to ensure that the hospital provides a sputum specimen collection area in accordance with TB infection prevention and control guidelines. Emphasis is placed on adherence to guidelines and the implementation of practices in the specimen collection area.
3. **KARS**: The focus is on the availability of sputum specimen collection spaces that comply with the PPI guidelines for TB. KARS assesses hospitals based on their compliance with the PPI standards set for sputum specimen collection.
4. **LAM KPRS**: Assessing that the sputum specimen collection area has met the PPI TB guidelines is important, but it is not clearly explained how this assessment is conducted or what specific aspects are being evaluated.
5. **LAFKI**: It is stated that hospitals should have a sputum specimen collection room that complies with TB infection prevention and control guidelines. It is also mentioned that there are Standard Operating Procedures (SOP) detailing the sputum specimen collection procedure.

From this comparison, it is evident that each accreditation institutions has a slightly different approach to assessing the availability of sputum specimen collection space that meets TB infection prevention and control guidelines, ranging from focusing on compliance with specific standards to implementing practices within the facility.

Patients should collect sputum in an open area, a sputum collection booth, or a room with proper ventilation settings. The air in the booth is directed to the outdoor area away from human traffic. The room should be left empty until it is estimated that the air has become clean before allowing the next patient to enter. In facilities with limited resources, patients are advised to collect sputum outside of buildings, in an open and uninhabited space far from accompanying individuals or others, windows or incoming air flow, and they should not use toilets as containers for sputum [18].

Assessment elements: The hospital has implemented the medical staff's compliance with clinical practice guidelines for tuberculosis.

When comparing the assessment elements related to medical staff compliance with tuberculosis clinical practice guidelines from each accreditation agency, several differences can be observed:

1. **LARS DHP**: This institution emphasizes the use of clinical pathways in the clinical management of TB as a method to ensure medical staff compliance with clinical practice guidelines. Additionally, adherence evaluation is also conducted through medical records, including compliance audit documents, particularly for OAT therapy.
2. **LARSI**: This organization examines tangible evidence that the hospital has implemented medical staff compliance with tuberculosis clinical practice guidelines. This is accompanied by an examination of the clinical practice guidelines held by the hospital. Interviews are conducted with various parties such as the Medical Committee, Quality Committee, TB Team, and Clinical Staff to ensure implementation of these guidelines.
3. **KARS**: The primary focus of KARS is the direct evaluation of medical staff compliance with the Clinical Practice Guidelines for Tuberculosis. In its assessment, KARS involves

the Pulmonary TB Team, PMKP Committee/Team, Medical Committee, and Clinical Staff.

4. **LAM KPRS**: The institution assesses the medical staff's compliance with tuberculosis clinical practice guidelines by reviewing medical records documenting the use of TB drugs. This indicates that the evaluation is conducted through thorough documentation in the medical records.
5. **LAFKI**: This institution emphasizes the implementation of medical staff compliance with tuberculosis clinical practice guidelines. In its assessment, LAFKI ensures that the clinical practice guidelines have been effectively applied in hospitals. The Standards for Tuberculosis Clinical Practice Guidelines and Tuberculosis Clinical Pathway are the primary focus of this evaluation.

According to the Minister of Health of the Republic of Indonesia Decree No. HK.01.07/MENKES/755/2019 on the National Guidelines for Tuberculosis (NGT) Medical Services, it is emphasized that medical practice should be carried out in accordance with the standard medical services outlined in the National Guidelines for Medical Services and standard operational procedures as well as establishing a decision by The Minister of Health regarding the National Guideline on Tubercolusis Management 2019 hereinafter referred to as NGT TB which serves as a guideline for doctors making clinical decisions at healthcare facilities, educational institutions, and related professional groups [21].

One specific aim of the PNPK (*Pedoman Nasional Pelayanan Kedokteran*) is to provide recommendations for hospitals/policymakers to develop local protocols or Clinical Practice Guidelines that are in line with these PNPK. Additionally, it also aims to increase TB patient notification rates, prevent drug-resistant TB, and reduce the morbidity and mortality of TB [21].

Assessment elements: The hospital is planning and conducting the procurement of anti-tuberculosis drugs.

In comparing the assessment elements related to the planning and procurement of anti-tuberculosis drugs from each accreditation body, several differences can be observed:

1. **LARS DHP**: This institution emphasizes the hospital's ability to provide a detailed explanation of the planning and procurement of anti-TB drugs. Assessment is carried out through well-documented planning and procurement documents for OAT that must be available.
2. **LARSI**: The institution assesses whether the hospital has planned and procured the provision of anti-tuberculosis drugs. This evaluation is based on documentation showing that the hospital has carried out planning and procurement of anti-TB drugs.
3. **KARS**: KARS evaluates documents concerning the planning of anti-tuberculosis drugs, including lists of medications and the recipients of these drugs. In addition, interviews are conducted with various relevant parties such as the Pulmonary TB Team, Pharmacy unit staff, related service unit staff, as well as patients or their families.
4. **LAM KPRS**: This organization evaluates the existence of tuberculosis drug planning and the availability of a TB drug supply list as indicators for TB drug planning and procurement. The TB team is one of the parties involved in this assessment.
5. **LAFKI**: The focus of LAFKI is on the hospital's ability to plan and procure anti-tuberculosis medication. Assessment is carried out through evaluating the Budget Work Plan related to the procurement of anti-TB drugs.

Logistics management is carried out at every level of the TB control program, from the central to provincial, district/city, and down to health facilities. Logistics management begins with planning and calculating the required logistics based on their types and quantities needed. The planning follows a bottom-up approach starting from health facilities up to the District/City Health Office and further adjusted according to needs. Private practitioners/clinics wishing to manage TB cases can obtain logistics from local community

health centers (puskemas). Community health centers compile logistic needs planning from private practitioners/clinics and other community health centers. Both government and private clinics or hospitals managing TB cases can request planning approval and receive these logistics from the local Health Office. All TB patient records for anti-TB treatment, whether under program or non-program usage, must be documented and reported to either the community health center or Local Health Office [22].

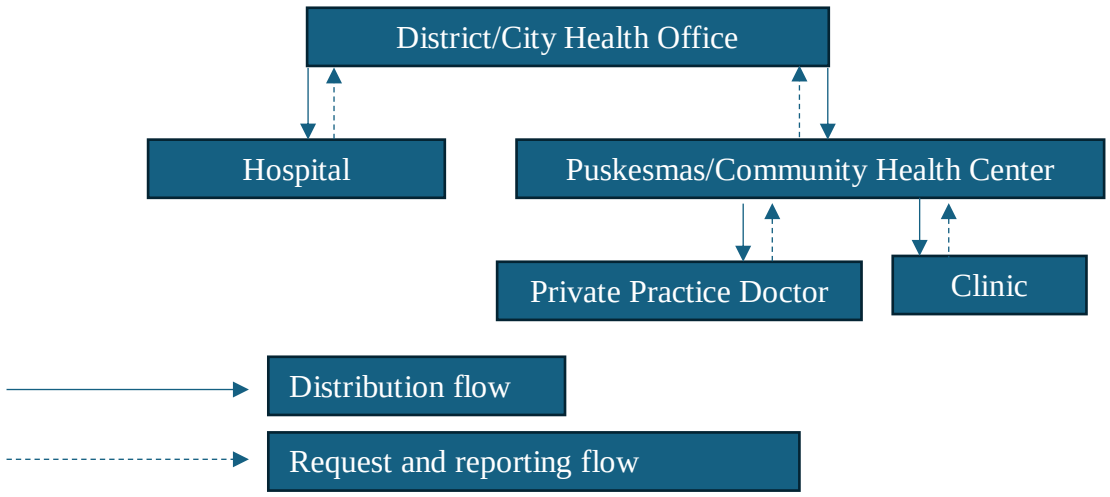

Figure 1. Logistics Management Flow of OAT [22].

Assessment elements: The hospital provides MDR TB services (for MDR TB Referral Hospitals). From comparing the assessment elements related to the implementation of MDR-TB services for MDR-TB referral hospitals from each accreditation body, several differences can be observed as follows:

1. **LARS DHP**: This institution evaluates the hospital's capability to explain MDR TB services, including facilities and outpatient and inpatient care that adhere to PPI standards.
2. **LARSI**: Assessment is conducted based on documentation demonstrating that the hospital has implemented MDR-TB services for referral hospitals. In addition, interviews with relevant parties such as the Head of the Pharmacy Unit, Head of Service Unit, TB Team, and PPI are also conducted to ensure the implementation of these services.
3. **KARS**: The KARS assessment focuses on the evidence of implementing MDR-TB services. Evaluation is conducted through observing the implementation of MDR-TB services and interviewing relevant parties such as members of the Pulmonary TB Team and related service staff.
4. **LAM KPRS**: The institution assesses the medical records related to MDR-TB services provided by the hospital. The TB team is involved in conducting this evaluation.
5. **LAFKI**: This institution evaluates whether the hospital has implemented MDR-TB services in accordance with its status as a referral hospital for MDR-TB. The evaluation is conducted by assessing the Standard Operating Procedures related to the implementation of MDR-TB services.

One of the reasons for developing resistance (secondary resistance) is due to mishandling of TB patients. The drug guidelines for MDR-TB patients differ from those for drug-sensitive TB treatment. The quantity and types of anti-TB drugs are also greater with quite severe side effects. Currently, not all health facilities implement infection prevention and control measures, so efforts should be made to improve healthcare facilities in

order to prevent transmission of MDR-TB from patients and reduce the risk of XDR-TB development among patients, their families, other patients, and healthcare workers [18]. One of the key considerations in treating MDR-TB is the role of Medication Adherence Support (MAS) which aims to ensure that patients take their medication as prescribed from the beginning of treatment until they are cured. MAS also involves accompanying patients during hospital visits, and reminding TB patients to come to the hospital for medication and scheduled sputum re-examinations [23], [24]**.**

Assessment elements: Hospitals conduct the recording and reporting of pulmonary TB cases in accordance with regulations.

In comparing the elements of assessment related to the implementation of recording and reporting pulmonary TB cases according to the provisions of each accreditation institution, there are variations in approaches and focus of assessments as follows:

1. **LARS DHP**: The assessment focuses on the hospital's ability to articulate the recording and reporting of pulmonary TB results to its leaders or directors. The documentation of pulmonary TB cases is also reviewed to ensure compliance with relevant regulations.
2. **LARSI**: This institution assesses whether the hospital has conducted the recording and reporting of Pulmonary TB cases in accordance with applicable regulations. Hospital management, Head of Pharmacy unit, Head of service unit, TB team, and PPI are involved in interviews to examine compliance with the recording and reporting procedures.
3. **KARS**: Assessment is carried out based on the evidence of implementing recording and reporting of Pulmonary TB cases in accordance with the regulations. The documented evidence includes a list of pulmonary TB patients, data analysis results, and implementation of reporting for pulmonary TB cases. Those involved in the interviews include members of the Pulmonary TB Team, relevant service unit staff, and hospital directors.
4. **LAM KPRS**: This organization assesses the implementation of recording and reporting pulmonary TB cases, as well as evaluates the tuberculosis morbidity reduction program. The TB team is involved in conducting this assessment.
5. **LAFKI**: The assessment focuses on whether the hospital has carried out the recording and reporting of pulmonary TB cases in accordance with applicable regulations. Documentation of the recording and reporting of pulmonary TB cases is emphasized in the evaluation.

All healthcare facilities dealing with TB cases must record the TB cases they handle and report them to the Community Health Center/Health Office. The recording and reporting of TB cases in hospitals are carried out using SITT/SITB. Specifically, healthcare facilities offering RO TB services and/or equipped with TCM devices use e-TB Manager [22].

There are essentially two procedures or process flows for transmitting tuberculosis data from the hospital to the Ministry of Health, namely manually entering data into the SITB application and integrating with SIMRS. The integration of SIMRS-SITB aims to improve reporting on missing TB cases in hospitals without replacing manual recording and reporting of TB cases in SITB [25].

Table 1. Comparison of Evidence Tracing for Assessment Elements in Each Accreditation Institution

Assessment Elements	LARS DHP [26]	LARSI [27]	KARS [28]	LAM KPRS [29]	LAFKI [30]
There is an outpatient care area that complies with tuberculosis infection prevention and control guidelines.	Outpatient care facilities are available and their implementation complies with PPI standards.	O: The hospital has established outpatient care facilities that comply with the guidelines for tuberculosis infection prevention and control. W: • Head of service unit • TB team • PPI	O: Outpatient clinic/polyclinics that adhere to the tuberculosis PPI guidelines W: • Head/Member of the Pulmonary TB Team • Head/Clinic Staff • IPCN	O: Outpatient TB service area complies with PPI guidelines.	Outpatient care that complies with the guidelines for the prevention and control of tuberculosis infection. D: • Guidelines for Outpatient Clinic Services at Pulmonary TB Polyclinic • Infection Prevention and Control Guidelines for Tuberculosis
If a hospital provides inpatient care for adult pulmonary tuberculosis patients, it must have an inpatient ward that adheres to the guidelines for preventing and controlling tuberculosis infections.	There are TB isolation rooms available and their management complies with PPI standards, including negative pressure.	O: Hospitals provide inpatient facilities that adhere to the guidelines for tuberculosis infection prevention and control. W: • Head of service unit • TB team • PPI	O : Inpatients for pulmonary tuberculosis patients who meet the TB DOTS program guidelines W: • Leader/Member of Pulmonary TB Team • Head/Inpatient Care Staff • IPCN	O : The inpatient TB service area complies with the TB management guidelines.	In providing inpatient care for adult pulmonary tuberculosis patients, hospitals must have inpatient facilities that adhere to the guidelines for preventing and controlling tuberculosis infections. D: Guidelines for Inpatient Care of Tuberculosis Patients.
There is a space available for collecting sputum	There is a space provided for sputum specimen collection and its management	O: The evidence shows that the hospital provides a	Specimen sputum collection area that complies with the PPI tuberculosis guidelines.	O: The sputum specimen collection area complies with	The area for collecting sputum specimens that complies with

Assessment Elements	**LARS DHP** [26]	**LARSI** [27]	**KARS** [28]	**LAM KPRS** [29]	**LAFKI** [30]
specimens that comply with the guidelines for the prevention and control of tuberculosis infection.	in accordance with PPI standards.	sputum specimen collection area that meets tuberculosis infection prevention and control guidelines. W: • Head of service unit • TB team • PPI	W: • Head of/Member of the Pulmonary TB Team • Head/ Laboratory staff • IPCN	the PPI TB guidelines.	the guidelines for tuberculosis infection prevention and control. D: SPO of sputum specimen collection room
The hospital has implemented medical staff compliance with tuberculosis clinical practice guidelines.	Management of clinical pathways for tuberculosis Medical record: Compliance with management of clinical pathways for tuberculosis, audit documentation on compliance (especially OAT therapy)	D: The evidence shows that the hospital has implemented medical staff compliance with clinical practice guidelines for tuberculosis. The evidence indicates that the hospital has established clinical practice guidelines for Tuberculosis. W: • Medical Committee • Quality Committee • TB Team • Clinical Staff	D: Evidence of evaluating medical staff compliance with TB control program W: • Chairperson/member of the Pulmonary TB Team • Committee/Team for Infectious Disease Control • Medical Committee • Clinical Staff	D: Document of medical records on the use of Clinical Practice Guidelines for TB.	Implementation of medical staff compliance with clinical practice guidelines for tuberculosis D : • Clinical Practice Guidelines for Tuberculosis • Clinical parthway for Tuberculosis
The hospital plans and organizes the provision of OAT.	Planning and procurement of OAT should be explained. The document on planning and procurement of OAT	D: The hospital has planned and arranged the provision of OAT.	D: List of documents for planning OAT List of OAT Roster of patients receiving OAT	D: The existence of TB drug planning and the presence of a TB drug supply list	Planning and conducting the provision of OAT D : Procurement

Assessment Elements	**LARS DHP** [26]	**LARSI** [27]	**KARS** [28]	**LAM KPRS** [29]	**LAFKI** [30]
		W: • Head of Pharmacy Unit • Head of TB Team Service Unit	W: • Chairperson/member of the Pulmonary TB Team • Head/staff of the Pharmacy Unit • Head/staff of related service unit • Patient/family	W: TB Team	and Provisioning Needs for OAT
The hospital provides services for MDR-TB (for MDR-TB Referral Hospitals).	The explanation of MDR TB Services and the outpatient and inpatient care facilities for MDR TB are provided according to PPI standards.	D: The evidence indicates that the hospital has provided MDR-TB services (for MDR-TB referral hospitals). W: • Head of Pharmacy Unit • Head of Service Unit • TB Team • PPI	O: Implementation evidence of MDR TB services W: • Leader/member of the Tuberculosis Team • Head/staff for related service provision	D: MDR TB medical record W: TB Team	Providing MDR TB services (for MDR TB referral hospitals). D : SPO of MDR TB service
The hospital conducts recording and reporting of pulmonary TB cases in accordance with the regulations.	The explanation of the TB recording and reporting outcomes to the leadership/Director is essential. The documentation for TB case recording and reporting.	D: The evidence indicates that the hospital has conducted the recording and reporting of pulmonary TB cases in accordance with regulations W: • Hospital Management • Head of Pharmacy Department	D: Evidence of the implementation of recording and reporting pulmonary TB cases according to regulations includes: a. List of pulmonary TB patients b. Data analysis findings c. Implementation of pulmonary TB case reporting W: • Head/ member of the Pulmonary TB Team • Head/ staff of the relevant service unit • Hospital Director	D: The implementation of recording, reporting, and evaluation concerning the tuberculosis morbidity reduction program. W: TB Team	Executing the recording and reporting of pulmonary TB cases in accordance with the regulations D: Recording and reporting of pulmonary TB cases

Assessment Elements	LARS DHP [26]	LARSI [27]	KARS [28]	LAM KPRS [29]	LAFKI [30]
		• Head of Patient Services Unit • TB Team • PPI			

The keys details are as follows :
D : Documents
O : Observation
W : Interview

CONCLUSION

Differences in approach are clearly evident among various accreditation agencies when evaluating factors related to improving tuberculosis services. These factors include facility availability, implementation of clinical practice guidelines, drug planning and procurement, management of MDR-TB services, and TB case recording and reporting. Furthermore, there is variation in the assessment focus carried out by each agency, ranging from emphasis on compliance with specific standards to the implementation of these practices in a real-world setting. Some agencies tend to emphasize adherence to established guidelines while others pay more attention to effective practice implementation in the field. Evaluation methods also vary, including direct observation, document review, and interviews with relevant parties. This highlights the importance of a holistic approach in assessing the quality of TB services at hospitals by considering various relevant aspects.

To enhance the effectiveness of the accreditation process in improving tuberculosis service quality in hospitals, harmonizing guidelines is crucial. Collaborative efforts among accreditation bodies to develop consistent and up-to-date guidelines will facilitate hospitals' compliance with accreditation requirements. Additionally, reinforcing the implementation of practices is necessary. Apart from emphasizing adherence to guidelines, accreditation bodies need to pay attention to effective practice implementation in TB management. Training and mentoring for hospitals can improve the quality of services provided. Increasing information availability is also key. Accreditation bodies should provide adequate resources and information related to accreditation requirements for hospitals. Clear and easily accessible information will help hospitals prepare for the accreditation process. Furthermore, research and development need reinforcement as well. Further research is needed to evaluate the effectiveness of guidelines and evaluation methods used by accreditation bodies. This will aid in identifying weaknesses and enhancing the accreditation process to improve TB service quality at hospitals. By considering these suggestions, it is hoped that the accreditation process can become a more effective instrument in improving TB service quality at hospitals ultimately aiding in more effectively combating this disease.

ABBREVIATIONS

TB: *Tuberkulosis*/Tuberculosis, TBC: *Tuberkulosis*/Tuberculosis, MDR: Multidrug-Resistant, XDR: Extensively Drug Resistance, WHO: World Health Organization, BTA: *Basil Tahan Asam*/Acid Resistant Bacteria, MDGs: Millenium Development Goals, SDGs: Sustainable Development Goals, KARS: *Komisi Akreditasi Rumah Sakit*, LARS: *Lembaga Akreditasi Rumah Sakit*, LARS DHP: *Lembaga Akreditasi Rumah Sakit Damar Husada Paripurna*, LARSI: *Lembaga Akreditasi Rumah Sakit Indonesia*, LAFKI: *Lembaga Akreditasi Fasilitas Kesehatan Indonesia*, LAM-KPRS: *Lembaga Akreditasi Mutu dan Kesalamatan Pasien Rumah Sakit*, ISQua: The International Society for Quality in Healthcare, DOTS: Directly Observed Treatment Short-course, ISTC: International Standard for Tuberculosis Care, PPI: *Pedoman Pencegahan dan Pengendalian*

Infeksi/Infection Prevention and Control (IPC) Guidelines, RI: *Republik Indonesia*/ Republic of Indonesia, Prognas: *Program Nasional*/National Programs, PPE: Personal Protective Equipment/*Alat Pelindung Diri (APD)*, HEPA: High-Efficiency Particulate Absorbing/Air, UVGI: Ultraviolet Germicidal Irradiation, IGD: *Instalasi Gawat Darurat*/Emergency Unit, SIMRS: *Sistem Informasi Rumah Sakit*/Hospital Management Information System, NGT: National Guidelines for Tuberculosis, PNPK: *Pedoman Nasional Pelayanan Kedokteran*/Clinical Pathways, MAS: Medication Adherence Support, IPCN: Infection Prevention and Control Nurse/Perawat Pencegah dan Pengendali Infeksi, SOP/SPO: Standard Operating Procedure.

DECLARATION

ETHICS APPROVAL AND PARTICIPATION CONSENT

Considering that this study does not involve human beings, animals, and data related to living organisms, it does not go through the Ethical Approval Procedure.

CONFLICT OF INTEREST

There is no conflict of interest in this study.

AVAILABILITY OF DATA AND MATERIALS

Data and materials are available upon request.

AUTHOR CONTRIBUTION

PO for creating the study design, conceptualization, data curation, formal analysis, and investigation. AS for writing the original draft of the manuscript, data curation, preparation, review and editing. All the authors have read and approved the final version of the manuscript and agreed to be accountable for all aspects of the work.

ACKNOWLEDGMENT

Not applicable

REFERENCES

[1] L. Djarang, R. T. S. Hariyati, A. A. Wildani, A. Asmara, and H. Aziz, "Optimalisasi Supervisi Keperawatan dalam Implementasi Program Nasional Penanggulangan Tuberkulosis," *Journal of Telenursing (JOTING)*, vol. 5, no. 2, pp. 3674–3682, Dec. 2023, doi: 10.31539/joting.v5i2.7919.

[2] K. Tsarwah Aulia, A. Surahman Batara, and A. R. Amelia, "IMPLEMENTASI STRATEGI PENEMUAN KASUS TUBERKULOSIS BERBASIS MASYARAKAT," *Window of Public Health Journal*, vol. 01, no. 02, pp. 98–110, Aug. 2020, doi: https://doi.org/10.33096/woph.v1i2.16.

[3] F. Aviana *et al.*, "SYSTEMATIC REVIEW PELAKSANAAN PROGRAMMATIC MANAGEMENT OF DRUG-RESISTANT TUBERCULOSIS PADA PASIEN TUBERKULOSIS RESISTAN OBAT," *Jurnal Kesehatan Masyarakat*, vol. 9, no. 2, pp. 215–222, Sep. 2021, doi: https://doi.org/10.14710/jkm.v9i2.28719.

[4] T. Siswantining, N. P. C. Dewi Purwandani, M. H. Dewi Susilowati, and A. Wibowo, "Geoinformatics of Tuberculosis (TB) Disease in Jakarta City Indonesia," *International Journal of GEOMATE*, vol. 19, no. 72, pp. 35–42, 2020, doi: 10.21660/2020.72.5599.

[5] T. Puspita *et al.*, "Spatial variation of tuberculosis risk in Indonesia 2010-2019," *Health Science Journal of Indonesia*, vol. 12, no. 2, pp. 104–110, Dec. 2021, doi: 10.22435/hsji.v12i2.5467.

[6] N. Annnisa and S. P. Hastono, "PENGARUH KATEGORI PENGOBATAN TERHADAP KEBERHASILAN PENGOBATAN PASIEN TUBERKULOSIS," *Jurnal Kesehatan Manarang*, vol. 5, no. 2, pp. 64–71, Dec. 2019, [Online]. Available: http://jurnal.poltekkesmamuju.ac.id/index.php/m

[7] J. R. Abednego Tangkilisan *et al.*, "ANGKA PENEMUAN KASUS TUBERKULOSIS PARU DI INDONESIA TAHUN 2015-2018," 2020.

[8] W. Komalasari and F. Indrawati, "Penatalaksanaan Program Pengendalian Tuberkulosis Multi Drug Resistant," *Higeia Journal of Public Health Research and Development*, vol. 4, pp. 887–897, Dec. 2020, doi: 10.15294/higeia.v4iSpecial%204/37527.

[9] Permenkes RI, "KEPUTUSAN MENTERI KESEHATAN RI NOMOR 364/MENKES/SK/V/2009 PEDOMAN PENANGGULANGAN TUBERKULOSIS (TB)," Jakarta, May 2009.

[10] A. Christanto, "Paradigma Baru Tuberkulosis pada Era Sustainable Development Goals (SDGs) dan Implikasinya di Indonesia," *CDK-260*, Kupang, pp. 57–60, 2018.

[11] Permenkes RI, "KEPUTUSAN MENTERI KESEHATAN REPUBLIK INDONESIA NOMOR HK.01.07/MENKES/1128/2022 TENTANG STANDAR AKREDITASI RUMAH SAKIT," Jakarta, Apr. 2022.

[12] H. Djasri, "Tips Memilih Lemabaga Akreditasi RS Terbaik." Accessed: Apr. 29, 2024. [Online]. Available: https://kars.or.id/2022/06/03/tips-memilih-lembaga-akreditasi-rs-terbaik/

[13] E. Trisna, Luwiharsih, and Ay. Djembarsari, "Dampak Bimbingan Akreditasi Terhadap Kelulusan Akreditasi Rumah Sakit," *Journal of Hospital Accreditation*, vol. 3, no. 1, pp. 3–5, Feb. 2021, doi: https://doi.org/10.35727/jha.v3i01.80.

[14] KEMENTERIAN KESEHATAN RI, *STANDAR AKREDITASI RUMAH SAKIT*. 2022.

[15] P. Oktamianti *et al.*, "Tuberculosis control within Indonesia's hospital accreditation," *J Public Health Res*, vol. 10, p. 1979, 2021.

[16] A. Probandari, " PENINGKATAN KUALITAS PELAYANAN TUBERKULOSIS DI RUMAH SAKIT DI INDONESIA: PEKERJAAN YANG BELUM SELESAI," *Jurnal Manajemen Pelayanan Kesehatan*, vol. 16, no. 1, pp. 1–2, 2013.

[17] W. Pitaloka and N. Siyam, "Penerapan Empat Pilar Program Pencegahan dan Pengendalian Infeksi Tuberkulosis Paru," *Higeia Journal of Public Health Research & Development*, vol. 1, pp. 133–145, Jan. 2020, doi: 10.15294/higeia/v4i1/33147.

[18] Supriyantoro *et al.*, *Pedoman Pencegahan dan Pengendalian Infeksi Tuberkulosis di Fasilitas Pelayanan Kesehatan*. Jakarta: Kementerian Kesehatan RI Direktorat BIna Upaya Kesehatan, 2012.

[19] J. Y. Lee, "Tuberculosis infection control in health-care facilities: Environmental control and personal protection," *Tuberculosis and Respiratory Diseases*, vol. 79, no. 4. Korean National Tuberculosis Association, pp. 234–240, Oct. 01, 2016. doi: 10.4046/trd.2016.79.4.234.

[20] T. Pynkyawati, M. A. Suhardianto, H. R. Reza, and R. N. Syifa, "Desain Ruang Perawatan Tuberkulosis Paru Ditinjau dari Sirkulasi dan Kenyamanan Pengguna Bangunan BBKPM Bandung," *Jurnal Reka Karsa*, pp. 1–13, Jun. 2016, doi: https://doi.org/10.26760/rekakarsa.v4i4.1387.

[21] E. Burhan, A. Y. Soeroto, and F. Isbaniah, *Pedoman Nasional Pelayanan Kedokteran Tata Laksana Tuberkulosis*. Jakarta: Kementerian Kesehatan RI, 2020.

[22] A. Sugihantono and W. Waworuntu, *Panduan Penerapan Jejaring Layanan Tuberkulosis di Fasilitas Kesehatan*

Pemerintah dan Swasta berbasis Kabupaten/Kota (District-Based Public-Private Mix/DPPM). Jakarta: Kementerian Kesehatan RI, 2019.

[23] Zuriati, U. N. Karim, S. Narulita, M. Novera, and Y. M. Kepok, "HUBUNGAN PERAN PENGAWAS MENELAN OBAT (PMO) DENGAN KEJADIAN MULTI DRUG RESISTENCE (MDR) TUBERKULOSIS," *Jurnal Amanah Kesehatan*, vol. 4, no. 1, pp. 2685–4023, 2021, doi: https://doi.org/10.55866/jak.v4i1.149.)

[24] S. Thannisa, A. Gumanti, D. Luthfiyani, C. Pradana, and V. Rifkia, "Monitoring Efek Samping Obat Antituberkulosis Fase Intensif dan Lanjutan Pasien Dewasa Tuberkulosis di RSUD Kota Bandung," *Jurnal Farmasi Indonesia*, vol. 12, no. 1, pp. 86–93, 2020, doi: https://doi.org/10.35617/jfionline.v12i1.52.

[25] Permenkes RI, "SURAT EDARAN NO. HK.02.01/MENKES/660/2020 tentang Kewajiban Fasilitas Pelayanan Kesehatan dalam Melakukan Pencatatan dan Pelaporan Kasus Tuberkulosis," Jakarta, Sep. 2020.

[26] LARS DHP, *INSTRUMEN STANDAR AKREDITASI RUMAH SAKIT*, vol. 1. 2022.

[27] LARSI, *Instrumen Akreditasi Rumah Sakit*, vol. 1. 2022.

[28] KARS, *Instrumen Survei Akreditasi KARS*, vol. 1. 2022.

[29] LAM KPRS, *Instrumen Standar Akreditasi*, vol. 1. 2022.

[30] LAFKI, *Instrumen Survei Standar Nasional Akreditasi Rumah Sakit*, vol. 1. 2022.