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EVALUATION OF NATIONAL INDICATORS FOR HEALTH CENTER QUALITY: SUCCESSFUL TREATMENT OF TB PATIENTS IN ALL DRUG SENSITIVE (SO) CASES AT KOLONO HEALTH CENTER SOUTH KONAWE DISTRICT

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ABSTRACT

The background: Indonesia is one of the countries with the highest TB cases, in 2023 there will be 808 thousand cases of drug-sensitive tuberculosis (TB) recorded and around 88 percent will start treatment. Based on data from the South Konawe Regency TB Information System (SITB) in 2023, there were 534 cases of TB with 526 cases of treatment status according to standards and 8 cases of non-standard treatment status. Objective: This study aims to determine the number of successful treatments for Tuberculosis (TB) patients with all drug sensitive (SO) cases at the Kolono Community Health Center, South Konawe Regency from January to June 2024. Method: The research is a qualitative study with a case study approach. National Quality Indicators (INM) focuses on indicators of successful treatment of Tuberculosis (TB) patients in all drug sensitive (SO) cases at the Kolono Community Health Center. Research data collection was carried out on 5 August 2024 - 10 August 2024. Primary data was obtained from in-depth interviews with three Community Health Center officers, while secondary data was taken from the results of quality measurements in the Health Facilities Quality Application regarding Indicators of Treatment Success for Drug-sensitive Tuberculosis (TB) Patients (SO) . Results: The results of this study show that treatment of SO TB patients at the Kolono Community Health Center was not successful. This is caused by infrastructure factors in the form of inadequate or non-standard microscopes and no materials for re-examination of sputum. So it can be said that efforts to improve the quality of successful treatment for TB patients can be seen from the flow of treatment from the time the patient is declared positive through bacteriological or TCM examination until the patient is declared cured and complete treatment is not fulfilled. Conclusion: Treatment of SO TB patients at the Kolono Community Health Center was unsuccessful.

INTRODUCTION

Turberculosis is still a health problem in Indonesia and creates very complex problems both from a medical, social, economic and economic perspective culture. Tuberculosis or TB is an infectious disease caused by Mgcobacteium Htberanlosds, which can attack the lungs and other organs. Mycobacterium tuberculosis is an aerobic, rod-shaped, acid-resistant bacterium that attacks body organs, especially the lungs. TB transmission occurs through droplet from active TB sufferers when coughing/sneezing. Infected patients can show active symptoms such as coughing, weight loss, anorexia, fever, night sweats, weakness, and coughing up blood, (1).

Tuberculosis (TB) is a disease that is preventable and usually curable. However, in 2022, TB will be the second cause of death worldwide from a single infectious agent, after coronavirus disease (COVID-19), and causes almost twice as many deaths as HIV/AIDS. More than 10 million people continue to fall ill with TB every year. Urgent action is needed to end the global TB epidemic by 2030, a goal that has been adopted by all Member States of the United Nations (UN) and the World Health Organization (WHO), (6).

Indonesia is one of the countries that makes the largest contribution to the global increase in the number of people newly diagnosed with TB in 2022 after India with a figure of 56% between 2021 and 2022. In 2023 there were recorded 808 thousand cases of drug-sensitive tuberculosis (TB) and around 88 percent started treatment. Drug Sensitive TB (SO) is a condition where Mycobacterium tuberculosis is still sensitive to potential OAT (Anti-Tuberculosis Drugs). TB SO and TBC RO are caused by inadequate treatment, causing the bacteria that cause TB, Mycobacterium tuberculosis to be resistant to drugs (6).

Indonesia has committed to reducing the incidence of tuberculosis cases to 65 per 100,000 population by 2030. Efforts to control tuberculosis in Indonesia in 2020-2024 are directed at accelerating efforts Indonesia to achieve the elimination of tuberculosis by 2030, and end the tuberculosis epidemic by 2050 (3).

Based on data from the South Konawe Regency TB Information System (SITB) in 2023, there were 534 TB cases with treatment status according to standards as many as 526 cases and the number of treatment statuses not according to standards was 8 cases. As an effort to reduce the incidence rate of tuberculosis cases and in order to ensure the success of treatment of TB patients, it is necessary to take steps to optimize efforts to handle TB cases according to standards.

The mandate of the Law states that everyone has the right to receive safe and quality health services, therefore the Minister of Health has stipulated Minister of Health Regulation Number 30 of 2022 concerning National Indicators for the Quality of Health Services in Independent Practice Places for Doctors and Dentists, Clinics, Health Centers Communities, Hospitals, Health Laboratories, and Regional Transfusion Units as one of the instruments for assessing and evaluating the quality of health services in all health service providing facilities. Puskesmas is a health service facility that carries out public health efforts and first level individual health efforts, which prioritize health services with a promotive and preventive approach (5).

There are 6 (six) National Puskesmas Quality Indicators, hereinafter abbreviated to INM Puskesmas, which every Puskesmas in Indonesia must fulfill. One of the INM Puskesmas is the Indicator of successful treatment of Tuberculosis (TB) patients with all drug sensitive cases at the Puskesmas. The aim is to determine the number of successes in treating TB patients with all drug sensitive cases and reduce the rate of TB disease transmission with a target of achieving 90%, (2).

This study aims to determine the number of successful treatments for Tuberculosis (TB) patients with all drug sensitive (SO) cases at the Kolono Community Health Center, South Konawe Regency from January to June 2024. Through this research, it is hoped that we can identify the factors that influence the success of treatment for Tuberculosis patients. (TB) all drug sensitive (SO) cases. In addition, this research aims to provide recommendations regarding improvements at the Kolono Community Health Center in order to improve health services in accordance with national standards. It is hoped that the results of this research can become a reference for Puskesmas management and policy makers at the regional level to develop better policies in improving the quality of health services. Apart from that, this research can contribute to scientific literature related to quality management in the health sector, especially on the successful treatment of Tuberculosis (TB) patients with all drug sensitive (SO) cases at Community Health Centers, and become a reference for similar research in the future.

METHODOLOGY

This research is a qualitative study with a case study approach, National Quality Indicators (INM) focusing on indicators of successful treatment of Tuberculosis (TB) patients in all drug sensitive (SO) cases at the Kolono Community Health Center. Research data collection was carried out on 5 August 2024 – 10 August 2024. Data collection was in the form of primary data and secondary data.

Primary data was obtained using the interview method which was carried out to obtain information about risk factors that influence the success of treatment for Tuberculosis (TB) patients in all drug sensitive (SO) cases at the Kolono Community Health Center. Meanwhile, secondary data was obtained using the retrospective observation method with the data source being the results of quality measurements Health Facilities Quality Application regarding Indicators of Successful Patient Treatment Drug-sensitive Tuberculosis (TB) for the period January to June 2024 at the Kolono Community Health Center.

RESULTS AND DISCUSSION

Response characteristics

The respondents in this study consisted of 3 (three) staff at the Kolono Community Health Center. The data for the two respondents can be seen in the table below:

Table 1. Respondent Data

No	Name	Age (Years)	Jk	Education	Profession	Task
1	Mrs. L	26	P	S1 Profession NERS	Nurse	TB Service Program Manager
2	Mrs. S	25	P	D IV	ATLM	Service Unit Manager Laboratory
3	Mr. I	42	L	S1 Profession NERS	Nurse	Manager Account Application Quality Health facilities

Tuberculosis is still a public health problem that causes high levels of morbidity, disability and mortality, so efforts to control it are necessary; The source of transmission is TB patients, especially patients who contain TB germs in their phlegm. When coughing or sneezing, patients spread germs into the air in the form of droplet nuclei. Infection will occur if a person inhales air containing infectious phlegm. One cough can produce around 3000 splashes of phlegm containing 0-3500 M of germs, tuberculosis. Meanwhile, if you sneeze, you can release as much as 4500 – 1,000,000 M. tuberculosis. Therefore, to minimize the impact of bad health and death caused by TB, every person suspected of having TB needs to immediately access diagnosis and treatment.

Kolono Community Health Center carries out efforts to control TB cases starting from finding TB cases in people suspected of having TB, establishing a diagnosis, determining the classification and type of TB service users, as well as case management consisting of treatment of service users along with monitoring and evaluation to prevent eye disease. chain of transmission. In the period June to December 2023 there were 7 patients suffering from pulmonary TB in the Puskesmas working area, this can be seen in table 1:

The definition of a TB case consists of two, namely;

a. Bacteriologically confirmed TB patients aare TB patients who have proven positive on examination results samples of biological tests (sputum and tissue) through direct microscopic examination, TCM TB, or culture.

b. Clinically diagnosed TB patients are patients who are not met the criteria for a bacteriological diagnosis but was diagnosed as an active TB patient by a doctor, and it was decided to be given TB treatment.

Based on the data in table 1, it is known that of the 7 (seven) pulmonary TB patients at the Kolono Community Health Center, there are only 3 (three) drug sensitive (SO) TB patients. Drug-sensitive TB patients (SO) are TB sufferers who, based on the results of bacteriological examination or the Rapid Molecular Test (TCM), show that the results are still sensitive to 1st line (first) OAT.

Treatment of TB patients is carried out according to standards by applying the concept treatment that favors patients (President of the Republic of Indonesia, 2021). The concept of patient-oriented TB treatment refers to an approach in treating Tuberculosis (TB) that places the patient as the main center of attention or better known as Patient Centered Care (PCC). The PCC concept involves relationships between patients, doctors, families and the community to ensure that patients, as individuals who are the subject of TB control, receive services that respect their desires and needs.

Anti-Tuberculosis Drugs (OAT) for TB control are provided by the government and provided free of charge through Community Health Centers as First Level Health Service Facilities (FKTP). OAT is the most important component in TB treatment which is the most efficient effort currently in order to treat and prevent the further spread of TB germs. Treatment is given in the form of an appropriate combination of OAT containing a minimum of 4 types of drugs to prevent resistance which is divided into two (2) stages as follows:

(a) Initial Stage

Treatment is given every day which is intended to effectively reduce the number of germs in the patient's body and minimize the influence of a small number of germs that may have become resistant before the patient received treatment. Initial treatment for all new patients, for a period of 2 months. In general, with regular treatment and without any complications, the transmission rate is greatly reduced after the first 2 weeks of treatment.

(b) Advanced Level

The next stage of treatment aims to kill any remaining germs are still present in the body, especially persister germs so that the patient can recover and prevent recurrence. This advanced stage of treatment is carried out over a period of 4 months.

The following is treatment data for 7 patients at the Kolono Community Health Center:

Table 2, data pengobatan pasien TB Paru Periode Juli S.D Juni 2024

No	Name	Age	Jk	Work	Subdistrict	Village / District	Tcm Examination Date		Tcm Examination Results	Tb Diagnosis Types
1	Mr. R	48	L	Farmer / Livestock Farmer / Fisherman	Colony	Puppy	07/27/2023		Neg	Diagnosed clinical
2	Mrs. B	66	P	Housewife	Colony	The Waworano	02/09/2023		Rif Sen	Confirmed bacteriological
3	Mr. A	41	L	Teacher/ Lecturer	Colony	Silea	12/09/2023		Rif Sen	Confirmed bacteriological
4	Mr. B	67	L	Farmer / Livestock Farmer / Fisherman	Colony	Mataiwoi	-		-	Diagnosed clinical
5	Ms. Ni	20	P	Students	Moramo	The Sea of Dreams	-		-	Diagnosed clinical
6	Mr. Rd	23	L	Self-employed	Ranowatu	Lacomea	-		-	Diagnosed clinical

7	Mr. S	51	L	civil servant	Colony	The Waworano	12/28/2023		Rif Sen	Confirmed bacteriological

Indicators of successful treatment of Tuberculosis (TB) patients with all drug sensitive (SO) cases at the Community Health Center aim to determine the number of successful treatments of Tuberculosis (TB) patients with all drug sensitive (SO) cases and reduce the rate of TB disease transmission. Successful treatment of TB patients is a number that shows the percentage of all TB patients cured and complete treatment among all TB patients treated and reported according to the TB treatment time period, which is the sum of the cure rate for all cases and the complete treatment rate for all cases which can describe the quality of treatment. TB. The success rate for treating Tuberculosis (TB) patients in all drug sensitive (SO) cases at the Kolono Community Health Center based on INM measurement results can be seen in table 3 below:

Table 3. Numbers success Treatment all TB patients Drug sensitive cases (SO) Period January SD June 2024

Name of Health Center	**January**		**February**		**March**		**April**		**May**		**June**		**Total**	
	Number	Denum	Cap (%)	Number	Denum	cap (%)	No	Again	cap (%)	No	Again	cap (%)	No	Again
Kulon Progo	0	0	0	3	3	100	0	0	0	0	0	0	4	4

The denuminator (DENUM) is the number of all TB SO cases treated in the current year in the work area of the Community Health Center. Numerator (NUM) is the number of all SO TB patients who recovered and completed treatment in the current year in the Puskesmas work area. A TB patient is said to be cured if the results of the bacteriological or TCM examination are positive at the start of treatment and the results of the bacteriological examination at the end of treatment are negative and at one of the previous examinations. Meanwhile, what is meant by complete treatment patient is a TB patient who has completed complete treatment where the results of one of the examinations before the end of treatment were negative.

The data in table 3 is results of observations on the measurement results of the Indicators of Treatment Success for Drug Sensitive Tuberculosis (TB) Patients (SO) for the period January to June 2024, on the Community Health Center Quality Application. From the data above, it is known that the success rate for treatment of drug-sensitive TB (SO) patients at Kolono Community Health Center is 100%. However, when confirmation of treatment flow data was carried out starting from the patient being declared positive as a TB patient based on the results of bacteriological or TCM examinations until the patient was declared cured and had completed treatment contained in the TB Form/TB Information System (SITB) at the Community Health Center, it was discovered that there were not any TB patients. who can be declared cured and complete treatment. This is due to the absence of results from bacteriological examination or microscopic re-examination of sputum at the end of the 2nd month, at the end of the 5th month and at the end of the 6th month of treatment. Then, based on the data in table 1, previously it was also known that TB patients were drug sensitive (SO), only number 3 (three)

just people.

To find out the cause of the data discrepancy, an interview was conducted with TN. I (42) as the person in charge of collecting and inputting data into the application, from the interview it was discovered that the respondent collected data using the interview method with TB service program managers and did not use data collection instruments. Respondents only asked how many patients had completed treatment in the previous month. Each INM has an indicator profile which becomes a reference in determining samples, collecting data and reporting. Based on the measurement profile of the Drug-sensitive (SO) Treatment Success Indicator for Tuberculosis (TB) Patients,

data collection used a retrospective method using the TB Form/TB Information System (SITB) as a secondary data source to avoid errors in data collection.

Based on the results of interviews with Mrs. L (26) and Mrs. S (25), it was discovered that the sputum re-examination was not carried out because there was no immersion oil. Immersion oil is a special liquid used in microscopes, especially in objective lenses with high magnification (usually 100x). This oil is applied between the objective lens and the preparation to be observed. Without immersion oil, most of the light passing through the preparation would be diffracted (bend) as it passes through the air before reaching the objective lens. This will cause the image to be blurry and less detailed. By using immersion oil, light diffraction can be minimized, resulting in sharper and clearer images. Immersion oil is a very important tool in microscopic examination of TB patient's sputum. By using immersion oil, laboratory personnel can obtain more accurate and faster examination results, thus helping in the diagnosis and monitoring of treatment of TB patients. Another cause is that the microscope at the Kolono Community Health Center is slightly damaged or moldy, which interferes with the observation results. Fungi can cause the lens to become blurry, the resulting image quality becomes blurry and unclear, making it difficult to observe and identify very small TB bacteria. Difficulties in observation and identification cause errors in data interpretation which can lead to false negative diagnoses, so that patients do not receive appropriate treatment.

The resource person has made efforts to overcome the obstacles as above in the form of submitting a request for immersion oil to the Health Service but this material is not available. The resource person has also reported the absence of this immersion oil at the Health Service to the Head of the Puskesmas in the hope that this material can be purchased using the puskesmas budget but to date there has been no follow-up from the Head of the Puskesmas. To overcome the problem of mold on the microscope, the resource person tried to clean it but did not produce maximum results.

CONCLUSION

From the results of the discussion above, the following conclusions can be drawn:

There is a discrepancy in the data on the measurement results of the drug-sensitive (SO) Tuberculosis (TB) Patient Treatment Success Indicator with the TB patient treatment flow data contained in the TB Form/TB Information System (SITB) as a result of the staff's lack of knowledge regarding the quality indicator profile.

Treatment of SO TB patients at the Kolono Community Health Center was unsuccessful. This matter caused by infrastructure factors in the form of inadequate or non-standard microscopes and no materials for re-examination of sputum. So it can be said that efforts to improve the quality of successful treatment for TB patients can be seen from the flow of treatment from the time the patient is declared positive through bacteriological or TCM examination until the patient is declared cured and complete treatment is not fulfilled.

Recommendations

Public health Office:

To optimize efforts to accelerate TB control in achieving the elimination of tuberculosis by 2030, the Health Service is responsible for:

(a) Providing funding for TB control activities from shared budget sources;

(b) Ensure the availability of resources in the form of personnel, tools and materials that comply with standards in service efforts in the context of controlling TB cases at Community Health Centers;

(c) Increase the capacity of officers at Community Health Centers;

(d) Conduct regular and continuous guidance, supervision and evaluation of efforts to serve TB patients at Community Health Centers by involving related professional organizations;

(e) Carry out guidance, supervision and evaluation of efforts to improve the quality of successful treatment of TB patients on a regular and continuous basis; (6) Strive for TB control by involving cross-programs and cross-sectors.

For Community Health Centers:

(a) Efforts to control the transmission of tuberculosis are one of the national priority programs so that efforts to control TB must carried out in accordance with established guidelines by involving cross-programs including UKM and UKP, laboratory and pharmaceutical services;

(b) Providing funding for TB control activities from shared budget sources;

(c) Ensure the availability of tools and materials that comply with standards and are adequate for re-inspection Bacteriological;

(d) The tuberculosis control program plan is prepared by prioritizing promotive and preventive efforts based on the results of analysis of tuberculosis control problems in the Puskesmas work area with cross-program involvement that is integrated with the RUK and RPK of UKM and UKP services, laboratory, and pharmacy.

(e) Carry out routine maintenance and calibration of medical equipment including microscopes to ensure optimal equipment performance.

(f) Recording and reporting of tuberculosis control services, both manually and electronically, is carried out completely, accurately, on time, and in accordance with procedures that refer to the provisions of the applicable laws and regulations.

(g) Monitor and evaluate TB control efforts routinely and periodically.

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