

Readmission Events Among Patients Who Received ACT Services as Pillar I of SIRUKOGALAR at Mutiara Sukma Mental Hospital

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Abstract

Readmission can occur in all diseases, including in patients with mental disorders where the sufferer experiences problems in the ability to judge reality or which one bad. One of the factors that cause recurrence in patients with mental disorders high emotional level. Another factor is the ability of patients to distinguish between family and hospital staff. In this case, most mental patients are more afraid of hospital staff than their families, so that when patients are allowed to go home the patient no longer follows directions from the family and feels that there is nothing to be afraid of. This caused the patient become not routinely monitored, and prone to experience a relapse. As the first pillar of "SIRUKOGALAR" (Three Communication Pillars Referral System) at Mutiara Sukma Mental Hospital, ACT (Assertive Community Treatment) was used as a comprehensive client-centered mental health program that. This program was carried out to reduce hospitalization, improve the patients' quality of life, train abilities in fulfilling daily activities, provide support to families and caregivers, reduce symptoms of disability and handle crisis in the community. This study aims to describe the incidence of readmission in patients who get ACT service at the the Mental Health Hospital in 2022. This study is a retrospective study. The data of patients were collected from the medical record from January 2020 to June 2022. The study results show that there is a decrease in the trend of readmission among patients who get ACT services in 2020 to 2022.

Keywords: Readmission; Assertive; Community Treatment; Mental Disorder

INTRODUCTION

The hospital is a place to get health services. The period when a patient is readmitted after receiving previous treatment at the hospital within a certain time frame is called hospital readmission (Fingar, Barrett & Jiang, 2017). The Center of Medicare and Medicaid Services (CMS) and Yale New Haven Health Services Corporation/Center for Outcomes Research and Evaluation (YNHHSC/CORE) in 2011 determined the risk according to the Hospital Wide Readmission (HWR) for public service-based claims measures, within 30 days re-admission of hospitalization after previously being hospitalized in the same or a different hospital (Horwitz et al. 2011). Every year readmissions increase and in 2011 it reached 3.3 million patients and an estimated cost of \$41.3 billion (Hines, Barrett, Jiang & Steiner, 2014). The

high cost makes readmission a top priority in the health care system.

The Center of Medicare and Medicaid Services (CMS) in America established the Hospital Readmissions Reduction Program (HRRP) to reduce readmissions (CMS.gov, 2020). HRRP is a program that performs maintenance laws to reduce readmissions. HRRP and the Partnership for Patients provide financial incentives for hospitals that are successful at reducing readmission preventable and defining measures (Bailey, Weiss, Barrett & Jiang, 2019). Starting in 2013 HRRP has effectively implemented fines for hospitals that exceed the readmission rate.

The United States implements broader initiatives to improve overall in-hospital health care and hospital follow-up interventions and does not focus on a single condition-specific approach. The goal of this step is not to reduce readmissions to zero, but to assess the hospital's performance relative to what is expected given the performance of other hospitals with a similar case mix (Horwitz et al., 2011). Statistical data from the Agency for Healthcare Research and Quality (AHRQ) in America in 2016 said the readmission rate decreased by 7% for Medicare patients 1.2/100 acceptance index with the implementation of HRRP focusing on preventable readmission cases and readmissions increased by 14% for patients who uninsured 1.4/100 acceptance index (Bailey et al., 2019).

There are various reasons underlying hospital readmission. Readmission risk factors consist of age, gender, Body Mass Index (BMI), patient education, social status, economic status, race, comorbid disease, employment status, length of stay in hospital, failure to convey important information on outpatient care, number discharge medication and many other factors that lead to readmission after 30 days of discharge. (Auerbach et al., 2016; Aubert, Folly, Mancinetti, & Hayoz, 2016; Picker et al., 2015; Hasan et al., 2010; Silverstein, Qin, Mercer, Fong, & Haydar, 2008). Many previous studies related to readmission have focused on certain diseases and certain patient populations.

In Indonesia there is no policy that specifically regulates readmission, so it is necessary to develop a specific study on determining priority diagnoses related to readmission regulations (Atmiroseva & Nurwahyuni, 2017). Readmission cases in Sukabumi in 2015 were found to reach 8.8% or 420 cases from 13 hospitals that collaborated with the Health Social Security Administration Agency (BPJS). The most readmission events occurred in the same Computer Modeling Group (CMG) readmission category and the least in the same severity-level category. The cost of inpatient readmission services is 104% -113% more expensive than the cost of initial treatment (Atmiroseva & Nurwahyuni 2017).

In the results of an interview with Tempo.Co Jakarta on 1 December 2019 with Mr.

Nazar (head of the Legal Bureau and Development of Members of the Indonesian Doctors Association) confirmed that there was a readmission practice at the hospital. This practice is a form of fraud in BPJS health services at hospitals to be able to claim fees from BPJS twice. This readmission practice occurs in INA-CBG which is an application used by hospitals to submit claims to the government (Fajar Pebrianto & Cahyani, 2019). Readmission events are detrimental in terms of cost burden by health insurance, readmission also affects the use of the number of available beds for hospitalization and has an impact on the quality of health service output in treatment.

In developing health services, Badan Penyelenggara Jaminan Sosial (BPJS) or the Social Security Administrative Body implements a system of quality control and cost control, including implementing fee contributions to prevent abuse of health services (UU No. 40 of 2014 article 24 paragraph 3). For this reason, BPJS will only cooperate with accredited hospitals. To improve the quality of hospital services in Indonesia, a policy regarding hospital accreditation has been regulated in Permenkes number 12 of 2012. The regulation states that hospital accreditation is an acknowledgment given by the government to hospital management because it has met established standards. Hospital accreditation aims to improve the quality of health services that prioritize patient safety. The hospital accreditation policy is a derivative of law number 44 of 2009 concerning hospitals. Readmission is one of the hospital performance indicators as stated in the minister of health regulation that re-admission cases are for similar cases (<1%) (Ministry of Health RI, 2009).

Readmission can occur in all diseases, including patients with mental disorders where the sufferer experiences disturbances in the ability to judge reality or is bad. Symptoms of this disease can be in the form of hallucinations, impaired thought processes and abilities, frequent illusions, and strange behavior (Risksedas, 2018). One of the factors causing recurrence in patients with mental disorders is that patients have a high emotional level, so they are able to distinguish between family and hospital staff, most mental patients feel more afraid of hospital staff than their families, so when the patient is allowed to go home, the patient no longer following directions from the family and feeling that there is nothing to be afraid of, one of which is that patients are not routinely controlled to make it easier for patients to experience relapse (Wulandari, 2018).

Mental disorders are often characterized by auditory hallucinations. Sufferers hear voices or delusions, comment on sufferer behavior, or even like discussing with themselves. This often becomes a hallucination that leads the sufferer to a strange and imaginary personality (Lunn, 2017). In addition, mental disorders are a significant health problem that

occurs in various countries, both in Indonesia and in other countries. This is a serious problem that needs to get more attention from Indonesia's health policy makers.

According to WHO data in 2019 as a whole around 264 million people experience depression, 45 million people experience bipolar disorder, 20 million people suffer from schizophrenia, and 50 million people experience dementia. Meanwhile, based on Riskesdas data for 2013 and 2018 it was stated that the prevalence of severe mental disorders in Indonesia was 1.7 per mile and 7.0 per mile, respectively. In 2013 the highest prevalence was in the Provinces of DI Aceh and DI Yogyakarta at 2.7% and the lowest was in the Province of West Kalimantan at 0.7% (Riskesdas, 2013). Whereas in 2018 the highest prevalence was in the Province of Bali at 11% and NTB ranked 3rd with 9.6% (Ministry of Health RI, 2018). From these data, there was a significant increase from 2013 to 2018.

NTB has quite a lot of health resources that support the opportunity to develop a regional mental health service system with RSJMS as a referral center but its use has not been optimized for mental health services. From this thought, an idea emerged to help develop mental health services at the Puskesmas so that Puskesmas staff are able to carry out initial assessments, conduct early detection of mental disorders, provide treatment according to their competence, and refer patients to specialist service facilities appropriately, and ultimately be able to carry out supervision, as well as monitoring the continuation of therapy in post-hospital care patients who are referred back, including post-shaping patient care. (Hans Pols, 2019)

To overcome these problems, the idea emerged to develop a "SIRUKOGALAR" system, namely a referral system which is a collaboration between the Mutiara Sukma Mental Hospital (RSJMS), the Provincial/District/City Health Office (Dikes) with the basic concept of "Puskesmas Empowerment" and Families. patient. These three collaborating elements then become the pillars. The first pillar is the RSJMS, the second pillar is the Puskesmas (including mental health cadres), the third pillar is the patient and his family (community).

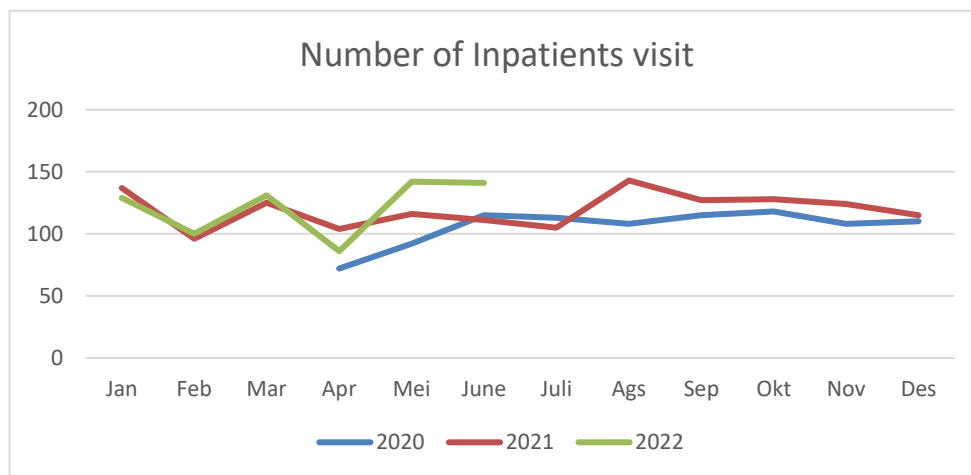
As the first pillar of "SIRUKOGALAR" Mutiara Sukma Mental Hospital (MSMH) ACT (Assertive Community Treatment) program was used as a comprehensive, client-centered mental health program that provides all outpatient treatment, rehabilitation and psychiatric support services for people with severe mental illness, who are prone to frequent relapses and rehospitalizations, and who have severe psychosocial disturbances. The ACT program used in the hospital is a modified ACT based on available sources. These efforts are made to reduce hospitalization, improve the quality of life of patients, train skills in fulfilling daily activities, provide support to families and caregivers, reduces symptoms of disability and crisis management in the community. Many reviews have documented evidence for the efficacy of

the ACT model, including reduced hospital use and increased housing stability. One of the goals of the ACT program is to support symptom stability and use appropriate treatment while also restoring personal, community and social abilities. To support the realization of this goal, the ACT Team continues to provide reinforcement and debriefing when patients go home in the hope of reducing the occurrence of readmissions in patients with psychiatric disorders. This study aims to describe the incidence of readmissions among patients with mental disorders who get ACT services at the Mutiara Sukma Mental Health.

METHODS

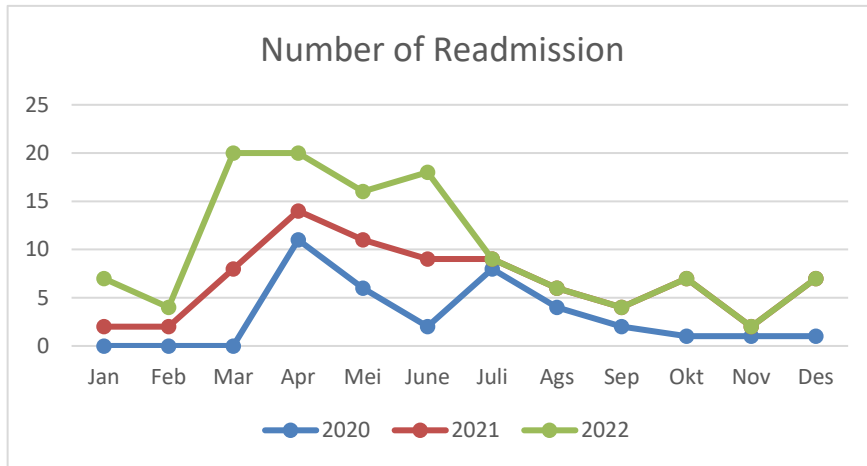
This study is a retrospective study. The data of patients were collected from the medical record from January 2020 to June 2022. The data of ACT services was collected from the data recorded by ACT team. The data collected is ACT service data, inpatient visits and readmission incidence. The data is processed in the form of distribution tables and presented in graphic to see the trend of readmission events.

RESULTS



Graphic 1. The Number of Inpatients Visit from April 2020 – June 2022

The graphic shows that the number of inpatient visits during the period April 2020 to June 2022 continues to increase even though there was a decrease in the number of visits. The number of readmissions in 2020 – 2022 shown in the graphic below.



Graphic 2. The Number of Readmission from April 2020 – June 2022

Based on the data above, the readmission events in 2020, 2021 and the first six months in 2022 were fluctuate.

Tabel 1. Percentage of Readmission Events from April 2020 – June 2022

Year	Detail	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Des
2020	Inpatient Visits				72	92	115	113	108	115	118	108	110
	Number of Readmissions				11	6	2	8	4	2	1	1	1
	Readmission Percentage (%)				8,87	8,33	2,17	6,96	3,54	1,85	0,87	0,85	0,93
2021	Inpatient Visits	137	96	125	104	116	111	105	143	127	128	124	115
	Number of Readmissions	2	2	8	3	5	7	1	2	2	6	1	5
	Readmission Percentage (%)	1,82	1,46	8,33	2,40	4,81	6,03	0,90	1,90	1,40	4,72	0,78	4,03
2022	Inpatient Visits	129	100	131	86	142	141						
	Number of Readmission	5	2	12	6	5	9						
	Readmission Percentage (%)	4,35	1,55	12,0	4,58	5,81	6,34						

Based on the data above, it is known that the percentage of readmission events fluctuates

DISCUSSION

Based on the results of the study, it was found that the percentage of readmission events at the start of the implementation of ACT services was quite high, reaching 8.9%. This result slightly exceeding the rate of readmission events in Sukabumi Region, West Java that reach 8,8% (Atmiroseva & Nurwahyuni, 2017). By the end of 2020, the percentage of readmission events was only 0,9%. This results was in line with the improvement of ACT service provided by ACT team throughout 2020. In 2020, the ACT team has improved their internal and external coordination with community and resources in the hospital. The significant decrease in readmission percentage has increase the hospital performance in the term of quality service. With the percentage 0,9% og reasmission events, the hospital succeeded in reaching the target of readmission percentage for similar cases, based on the Ministry of Health which is <1%.

At the beginning of 2021, although in January this achievement could still be maintained, it was calculated that February experienced a spike in readmission cases, that reach up to 8.33%. This was caused by many factors, but one that played a big role in this incident was a change in policy of the hospital regarding the efforts to reduce the length of stay (LOS) for patients visiting inpatients ward. The hospital made various efforts to shorten the length of stay of inpatients. The previous average LOS of 21 days, decrease to only 14 days by calculating the effectiveness of the financing borne by BPJS (Health insurance) for type B Hospital. This case was still being evaluated using the clinical pathway. The number and the percentage of readmission after the the application of ACT program still fluctuates. The number of readmissions was affected by various factors, not only by the treatment program. Hospital policy and the use of health insurance can also affect the number of readmissions. Despite the significant decrease as illustrated in year 2020, the percentage can still spike or increase at any time due to various factors.

CONCLUSION

The readmission events among patients who received ACT services as Pillar I of SIRUKOGALAR at Mutiara Sukma Mental Hospital, West Nusa Tenggara Province showed a significant decrease in 2020, following the start of ACT services in April 2020. However, the next percentage in 2021 – 2022 fluctuated, and it even reached the highest number in March

2022. Although the ACT program is keep running and has been improved, other factors has contributed to the increase in the readmission percentage.

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