



The Impact Of COVID-19 on the Number of In-Patient Visit in Pediatric Haemato-Oncology Ward, Ulin Hospital Banjarmasin, 2019-2021

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Abstract

Background: The Indonesian government implemented a social restriction policy which concludes large-scale social restrictions in dealing with COVID-19. This situation made a huge impact on people's lives, especially those who need regular medication.

Objective: This study aims to find the comparison of the number of in-patient visits before and during the COVID-19 pandemic in the pediatric haemato-oncology ward of Ulin Hospital Banjarmasin.

Method: This study is a retrospective descriptive study with a cross sectional approach in Pediatric Haemato-Oncology Ward Ulin Hospital, 2019-2021. The data on this study was obtained through the recapitulation census from administration section of Pediatric Haemato-Oncology Ward, Ulin Hospital Banjarmasin. The data analysis in this study was processed with Microsoft Excel 2019.

Result: The total number of in-patient visits in pediatric haemato-oncology ward respectively was 14.261 visits in 2019 (before COVID-19 pandemic), 10.941 visits in 2020 (during pandemic), and 9.929 visits in 2021 (during pandemic). There was a decrease in the percentage of in-patient visits in Pediatric Haemato-Oncology Ward of Ulin Hospital Banjarmasin by 23% in 2020 and 30% in 2021 compared to 2019.

Conclusion: There was a decreased in the number of in-patient visits in Pediatric Haemato-Oncology Ward at Ulin Hospital Banjarmasin during the COVID-19 pandemic.

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Keywords: COVID-19; Hematology-Oncology; Hospital Services; Pediatric cancer.

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Introduction

In December 2019, China reported to the World Health Organization (WHO) that there was an incidence of pneumonia of unknown cause.¹ This virus causes symptoms of severe respiratory distress caused by SARS-CoV-2 which later known as Coronavirus Disease 2019 (COVID-19). [1,2] The first case of COVID-19 death occurred in Wuhan on 9th January 2020. Globally there were more than 392 million COVID-19 confirmed case and more than 5,7 million deaths related to COVID-19 reported in 6th February 2022 [3]. Indonesia ranks 3rd in Southeast Asia and ranks 20th in the world with the highest cases of COVID-19 [4].

The Indonesian government implemented a social restriction policy including large scale restriction regulation referred to Government Regulation Number 21 in 2020 as an effort to control the spread of SARS-CoV-2 infection. In its implementation, the regulation is carried out in the Regulation of the Indonesia Minister of Health Number 9 in 2020 which regulate guidelines for social restrictions. The implementation of large scale social restrictions is carried out in almost every major cities in Indonesia, this activity aimed at reaffirming the restrictions on individual social activities which potentially spread COVID-19 infection. The application of large scale social restrictions varying depend of the number of case in each cities. The citizen is also advised to stay at home and advised to go to the hospital if only there were emergencies. Health care facilities have also reduced health services for non-COVID-19 patient in order to focus on providing COVID-19 pandemic services and to reduce the risk of transmission in health facilities. It is undeniable that this situation has a major impact on people’s lives [5].

This study aim to find the comparison of the number of in-patient visits before and during the COVID-19 pandemic in Paediatric Haemato-Oncology Ward of Ulin Hospital Banjarmasin.

Research methods

This study is a retrospective descriptive study with a cross sectional approach in Pediatric Haemato-Oncology Ward Ulin Hospital, 2019-2021. The data on this study was obtained through the recapitulation census from administration section of Pediatric Haemato-Oncology Ward, Ulin Hospital Banjarmasin. The data analysis in this study was processed with Microsoft Excel 2019. The data is tabulated according to categories and graphed.

Results

This study was a descriptive analytic study with a cross sectional approach. The data obtained through the recapitulation census from administration section of Paediatric Haemato-Oncology Ward, Ulin Hospital Banjarmasin. The census data of in-patient visits were taken from 2019 to 2021. Observation and data investigation were carried out to determine the number of in-patient visits and to compare the number of in-patient visits before and during the COVID-19 pandemic, from 2019 to 2021.

Table 1 shows that the total number of in-patient visits in Paediatric Haemato-Oncology Ward in Ulin Hospital in 2019, 2020, and 2021 was 4.787 of male patient visit compared to 2.656 of female patient visit. The total number of in-patient visits in oncology categories were 4.465 visits and in haematology categories visit were 2.182 visits. There were more visits in haematology categories compared to oncology categories. There were a decrease in the number of patient and the number of cases from 2020 to 2021.

Table 1: Data characteristic.

No	Data Characteristic	Years			Total
		2019	2020	2021	
1	Sex				
	Male	1877	1446	1464	4787
	Female	1038	904	714	2656
2	Patient Categories				
	Haematology Patient	945	662	575	2182
	Oncology Patient	1534	1442	1489	4465

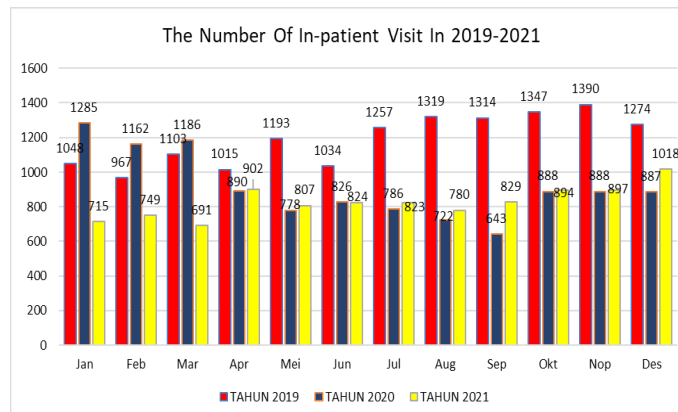


Figure 1: The Number of In-patient Visits in 2019-2021.

Figure 1 describe the number of in-patient visits each month from 2019 to 2021. There were a total of 14.261 in-patient visits with an average number of visits was 1.189 visits in a month from January to December 2019 (before the COVID-19 pandemic). The highest number of visit in 2019 occurred in November 2019 which was 1.390 visits. There were a total of 10.941 in-patient visits with an average number of visits was 912 visits in a month (during the COVID-19 pandemic). The highest number of visit in 2020 occurred in January 2020 which was 1.285 visits and continue to decreased as the pandemic progressed. The lowest number of visit in 2020 occurred in September 2020 which was 643 visits. There were a total of 9.929 in-patient visits with an average number of visits was 827 visits in a month (during the COVID-19 pandemic). The highest number of visit in 2021 occurred in December 2021 which was 1.018 visits. In 2021, there were a decreased number of in-patient visit in January to March 2021, where the lowest number of visits occurred in March 2021 which was 691 visits.

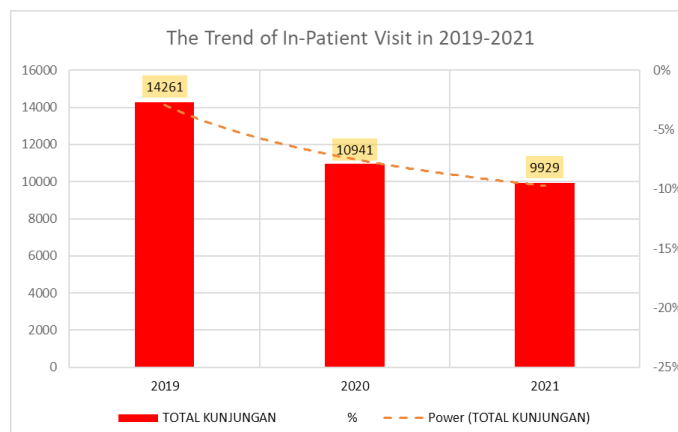


Figure 2: The Trend of In-patient Visit in 2019-2021.

There were a decreased number of in-patient visit in Paediatric Haemato-Oncology Ward in Ulin Hospital Banjarmasin before and during the COVID-19 pandemic where the total number of in-patient visit before the COVID-19 pandemic (2019) where 14.261 visits compared to the total number of in-patient visit during the COVID-19 pandemic (2020 and 2021) were respectively 10.941 and 9.929 visits (Figure 2).

Discussion

Ulin Hospital is a type A regional hospital located in Banjarmasin, South Borneo. Ulin Hospital is also an educational purpose hospital in medical education and become a referral centre hospital in South Borneo and Central Borneo which provides medical services in the form of specialist and subspecialist services; however, our data show a decrease in the number of in-patient visits at Paediatric Haemato-Oncology Ward at Ulin Hospital during COVID-19. [6] This finding is also consistent with reports from other parts of the world where there is a reduction in the utilization of health services related to non-COVID-19 patient [7].

There was a decrease in the percentage of in-patient visits in Paediatric Haemato-Oncology Ward of Ulin Hospital Banjarmasin by 23% in 2020 dan 30% in 2021 compared to 2019. Mustafa et al study in 2021 at Paediatric Oncology Department in Turkey found that the number of in-patients per day during COVID-19 period was 17,7 patients per day which were significantly lower than during the prior year control period was 23,8 patients per day [8].

The decrease in the number of in-patient began in April 2020 which 12% lower compared to the same month in the previous year. This phenomena occurred after the first COVID-19 case in Indonesia was announced in 2nd March 2020 or about 4 months after the first case in Wuhan, China. The first large-scale social restriction is implemented at April 2020 in Indonesia [2]. The lowest number of in-patient visit was occurred in September 2020 where there were only 543 visits. This phenomena might occurred because people were afraid to go the hospital because of the COVID-19 pandemic. Meanwhile the highest number of in-patient visit was occurred in December 2021 which was 1.018 visits, this number is close to the number of in-patient before the COVID-19 pandemic. This phenomena might occurred because in July 2021 the adaptation of new habits of COVID-19 pandemic had already begun resulting in an increase in the number of patients from July to December 2021 compared to the same month in previous year.

In this study, the reduction number of in-patient visit remained unclear. The reduction in the number of in-patient visit in 2020 and 2021 might be due to a decrease in disease morbidity or avoidance of hospital visit related to COVID-19 pandemic. However, the most reasonable cause of this phenomena is the massive alarming medical information related to COVID-19 resulting in fear across Indonesia [9]. Although the COVID-19 symptoms in children is milder than in adults, [10] the fear of transmission SARS-CoV-2 while visiting hospital has influenced parents' decision [11].

Many changes that occur in hematology-oncology patients during the COVID-19 pandemic. Data from Italy and United State show that there was a decreased access from pediatric cancer patient to referral center due to decrease of primary care visit and the reluctance of the families to take the risk of exposing their children to the virus. This might cause delayed in diagnosis and treatment [12]. Graetz et al study show that there

was a changes in treatment of cancer patient which consist of reduced surgical treatment, shortage of blood products, chemotherapy modification, and interruption of radiotherapy [13]. The delayed in cancer diagnosis and treatment during COVID-19 pandemic may do more harm than the COVID-19 infection itself. For example, in the case of osteosarcoma, the delay in diagnosis was shown to be not correlated with the probability of primary metastases, early invasion, and the probability of survival [14].

A survey on the website Hospitalmanagement.net showed that the COVID-19 pandemic made people very reluctant to go to the hospital, this might cause doctor appointments at the hospital to be cancelled. Up to 43% respondents agree that the COVID-19 pandemic has made them reluctant to go the doctor at the hospital and cancel appointments, while 36% do not want to see a doctor but still want to use telemedicine, while 22% respondents still want to consult to a doctor at a local hospital. [15,16] We believe that the same thing happened at the Ulin Hospital Banjarmasin especially after Ulin Hospital was appointed as COVID-19 referral centre. This could make people avoided to visit the hospital or make a medical appointment. This can be an input for the management of Ulin Hospital Banjarmasin to be able to manage the COVID-19 and non-COVID-19 service areas in a more integrated and optimal manner. Hopefully this can convince the public so that patients are not afraid to visit the hospital and could lowered the risk of delayed treatment. In terms of education, the impact of the COVID-19 pandemic has resulted in a decrease in the variety of hospitalization cases especially in the field of paediatric haemato-oncology. This phenomena also could influence the learning progress for medical students which make the education less optimal.

Conclusion

There were a decreased number of in-patient visit in Paediatric Haemato-Oncology Ward in Ulin Hospital Banjarmasin during the COVID-19 pandemic which could lead to delay in the diagnosis and treatment of paediatric haemato-oncology related disease.

References

1. de Souza TH, Nadal JA, Nogueira RJN, Pereira RM, Brandão MB. Clinical manifestations of children with COVID-19: A systematic review. *Pediatr Pulmonol.* 2020; 55: 1892-1899.
2. Burhan, Erlina AD, Susanto AD Nasution SA, Ginanjar Eka Pitoyo CW, et al. *Pedoman Tatalaksana COVID- 19 Edisi 4.* Jakarta. 2022.
3. Lam N, Muravez SN, Boyce RW. A comparison of the Indian Health Service counseling technique with traditional, lecture-style counseling. *Am Pharm Assoc.* 2015; 55: 503-510.
4. Pudjiadi AH, Putri ND, Sjakti HA, Yanuarso PB, Gunardi H, et al. Pediatric COVID-19: Report From Indonesian Pediatric Society Data Registry. *Front Pediatr.* 2021; 9: 716898.
5. Kementrian Kesehatan Republik Indonesia. Panduan Teknis Pelayanan Rumah Sakit Pada Masa Adaptasi Kebiasaan Baru. Direktorat Pelayanan Kesehat Rujukan. 2020; 1689-1699.
6. Profil RSUD Ulin Prov. Kalsel.
7. Tartari F, Guglielmo A, Fuligni F, Pileri A. Changes in emergency service access after spread of COVID-19 across Italy. *J Eur Acad Dermatology Venereol.* 2020; 34: e350-e351.
8. Kutluk MT, Ahmed F, Kirazlı M, Bajin İY, Müngen E, et al. The effect of the COVID-19 pandemic on paediatric cancer care: lessons learnt from a major paediatric oncology department in Turkey. *Ecancermedalscience.* 2021; 15: 1172.

9. Finset A, Bosworth H, Butow P, Gulbrandsen P, Hulsman RL, et al. Effective health communication – a key factor in fighting the COVID-19 pandemic. *Patient Educ Couns*. 2020; 103: 873-876.
10. Lu X, Zhang L, Du H, Zhang J, Li YY, et al. SARS CoV-2 infection in children. *N Engl J Med*. 2020; 382: 1663-1665
11. Lazzerini M, Barbi E, Apicella A, Marchetti F, Cardinale F, et al. Delayed access or provision of care in Italy resulting from fear of COVID-19. *Lancet Child Adolesc Heal*. 2020; 4: e10–e11.
12. O’Neill AF, Wall CB, Roy-Bornstein C, Diller L. Timely pediatric cancer diagnoses: an unexpected casualty of the COVID-19 surge. *Pediatr Blood Cancer*. 2020; 67.
13. Graetz D, Agulnik A, Ranadive R, Vedaraju Y, Chen Y, et al. Global effect of the COVID-19 pandemic on paediatric cancer care: A cross-sectional study. *Lancet Child Adolesc Heal*. 2021; 5: 332-540.
14. Goyal S, Roscoe J, Ryder WD, Gattamaneni HR, Eden TO. Symptom interval in young people with bone cancer. *Eur J Cancer*. 2004; 40: 2280-2286.
15. Prabowo NA, Apriningsih H, Dirgahayu P, Ardyanto TD, Hanafi Muchtar, et al. The Decrease in Hospital Visits at Universitas Sebelas Maret Hospital Due to the Level of Stress and Fear of COVID 19. *Proc 4th Int Conf Sustain Innov. 2020–Health Sci Nurs*. 2021; 33: 101-104.
16. COVID-19 fears affect appointments for routine doctor visits: Poll.