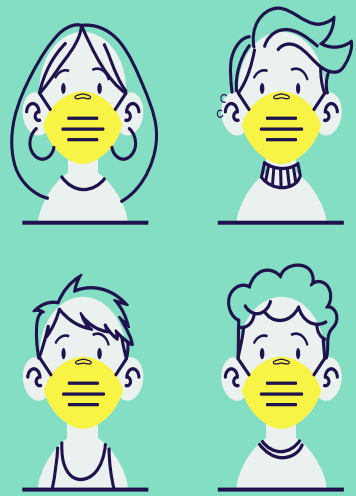
TOBACCO USE AND THE SEVERITY OF COVID-19 DISEASE : ASSOCIATION AND SIGNIFICANCE

PROGRAM HIBAH JHSPH's ITCRN, 2020



A CROSS SECTIONAL STUDY OF INDONESIAN HOSPITALIZED PATIENTS WITH COVID-19

8ND ICTOH, MAGELANG

Tim:

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SPECIFIC RESEARCH AND ACTIVITY (REKAM JEJAK AUTHOR)

- 2007 : Riset UHAMKA dengan KPAI tentang Dampak iklan rokok dan kegiatan-kegiatan yang disponsori rokok terhadap aspek kognitif, afektif dan perilaku remaja di DKI Jakarta
- 2010: Reward: Pelopor KTR UHAMKA/ Ketua Satgas,
- Survey masyarakat kampus tentang penerapan KTR di UHAMKA
- 2020 :TCSC IAKMI: Tim Penulis *Fact Sheet* Tembakau Indonesia, data empirik untuk pengendalian tembakau
- *"Tobacco Use and Covid-19: A cross sectional study of Indonesian*
- *hospitalized patients with Covid-19*" (Hibah ITCRN)
- Member of Muhammadiyah TC
- PJ kemitraan MPKU PP Muhammadiyah dengan Promkes Kemenkes dalam PHBS dan GERMAS sejak 2011 (termasuk KTR)
- 2022: Brain Mapping and Visual Attention on Cigarette Packs Based on Electroencephalography and Human Eye Tracker between Teen Smokers and Nonsmokers
- 2023: (*ongoing): Pemasaran dan penerimaan penggunaan rokok elektrik di kalangan remaja di Indonesia, studi di DKI Jakarta, Kaltim, DIY*

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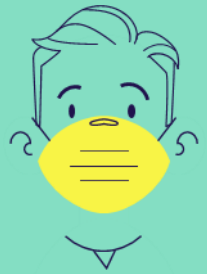
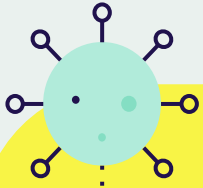
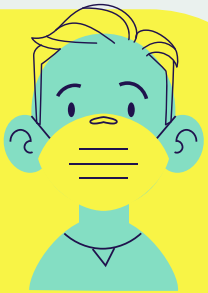
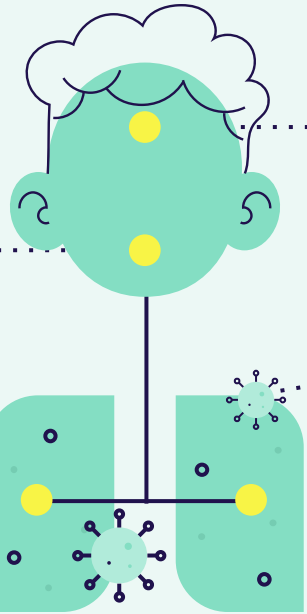






I. LATAR BELAKANG

FAKTOR RISIKO COVID-19 (RESEARCH BASED)



01. USIA

02. Jenis Kelamin

03. Penyakit Komorbid

penyakit paru-paru (asma, TBC, paru-paru obstruktif kronis (PPOK)), penyakit jantung, obesitas, Kanker (Wan et al., 2020)

04. Merokok?

Perokok lebih mungkin menyebabkan peningkatan keparahan penyakit Covid-19 dibanding dengan non perokok berdasarkan tinjauan para ahli kesehatan masyarakat yang diadakan WHO pada tanggal 29 April 2020.

PREVIOUS STUDY(I): FAKTOR RISIKO PEROKOK PADA PENYAKIT COVID-19

Studi di China/Tiongkok (**prevalensi perokok yang tinggi di populasi** (26,6%),

dengan prevalensi perokok pada **pria (50,5%)** lebih tinggi dari perempuan (2,1%) .

Selama masa pandemik ini, beberapa penelitian di China)(Xiang, Cao, Yang, Cezmi, & Gao, 2020). (Guan et al., 2020). menunjukkan temuan berikut:

di antara pasien dengan tingkat keparahan yang tinggi: (n=58) terdapat 3,4% perokok pemula dan 6,9% perokok lama (dari 140 pasien Covid-19) ; (n=173) 16,9% perokok pemula, dan 5,2% perokok lama (dari populasi1099 pasien Covid dari berbagai wilayah di China)

di antara pasien dengan tingkat keparahan yang rendah: (n=82) terdapat 0% perokok baru dan 3,7% perokok lama.: OR= 2,23 (95% CI: 0.65–7.63; p=0.2,; Ada 11,8% perokok pemula, dan 1,3% perokok lama.

PREVIOUS STUDY (2)

Untuk pasien Covid-19 yang membutuhkan ventilator, dirawat di ICU dan meninggal

terdapat 25,5% perokok baru dan 7,6% perokok lama (Guan et al., 2020).

Hasil analisis multivariat logistik studi lainnya menunjukkan bahwa OR untuk faktor risiko usia 8.546; 95% confidence interval [CI]: 1.628–44.864; P = 0.011), serta **riwayat merokok (OR, 14.285; 95% CI: 1.577–25.000; P = 0.018).(Liu et al., 2020).**

INDONESIA

Riskesdas tahun 2018:

Angka perokok tertinggi di dunia untuk kelompok laki-laki. jumlah perokok >15 tahun sebanyak 33,8 % (62,9 % laki-laki dan 4,8% perempuan.(Kemenkes RI, 2018).

Jumlah perokok ini **dibarengi dengan peningkatan proporsi penyakit akibat konsumsi roko**k (hipertensi, stroke, diabetes, jantung, kanker).

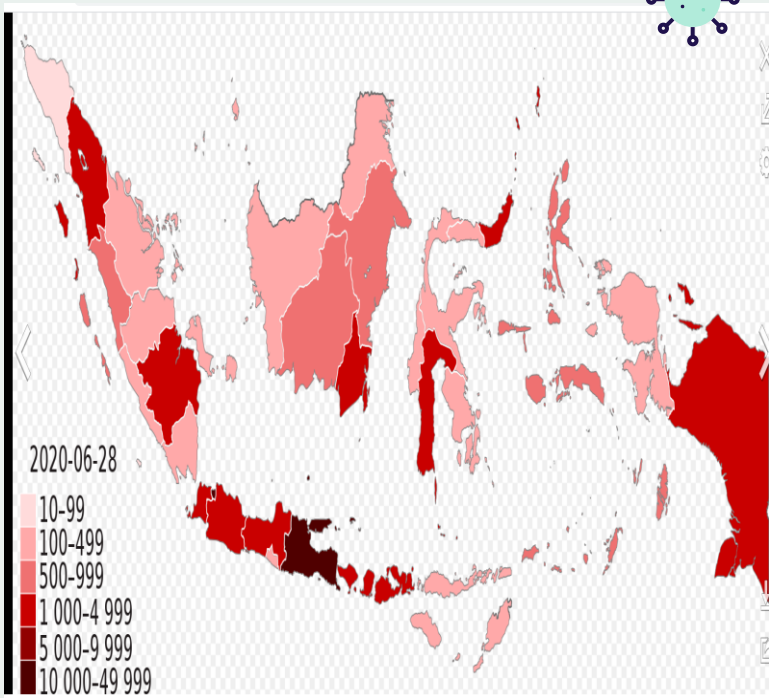
Covid-19:

Belum ada solusi efektif bagi menurunkan penularan yang terjadi di masyarakat.

Kasus baru yang masih terus meningkat dapat menyebabkan ketidakpastian terkait kapan waktu berakhirnya wabah ini.

Riset Perokok dan Covid-19 di Indonesia ???

Rekam Medis Pasien Covid-18 di RS (termasuk RSMA) tanpa mencantumkan status Merokok



PERAN RSMA DI MASA COVID-19

Selama masa pandemic, ormas Muhammadiyah melalui RSMA melayani pasien Covid-19 confirmed di 87 RS Muhammadiyah-'Aisiyah yang berada di 10 provinsi di Indonesia (data 2021). Semua RSMA telah ditunjuk oleh MPKU PP Muhammadiyah dan MDMC (*Muhammadiyah Disaster Management Center*) yang mengelola seluruh RSMA di Indonesia

02. TUJUAN PENELITIAN

TUJUAN UMUM

Memperoleh hasil analisis hubungan antara status merokok dengan tingkat keparahan Covid-19 dari pasien RSMA

TUJUAN KHUSUS

Memperoleh hasil analisis hubungan antara **status merokok** (current, former, and never) smoker dengan tingkat keparahan penyakit Covid-19 (outpatient, hospitalization, and ICU)

03. METODOLOGI (I)

Populasi: **Pasien Covid-19 confirmed (PDP) yang dirawat di 83 RSMA (Maret-Juli 2020)**

>>>> **15 RSMA bersedia (di** 5 Provinsi **DKI Jkt, Jateng, DIY, Jatim, Kalteng):**

Sampel: **490 pasien Covid-19 (response rate 60,12%)**

Kriteria inklusi: registered, bersedia menjadi responden untuk status merokok

Lokasi: RS Muhammadiyah-'Aisiyah: DKI, Jatim, Jateng, Yogya, Kalteng

Disain: Cross Sectional

Anaysis: Chi Square, Regresi Logistik

Data : Sekunder (RM Pasien Covid-19) dan Primer (status merokok)

Waktu : April-Sept, 2020

03. METODOLOGI (2)

KATEGORI SMOKING STATUS/BEHAVIOUR

Adjusted from the Centers for Disease Control and Prevention (CDCP), and it was divided into three groups based on National Health Statistics Reports, Number 145, July 22, 2020.

"**Never Smokers**" : never smoked or have smoked less than 100 cigarettes in their lifetime."

"**Former smokers**": have smoked at least 100 cigarettes in their lifetime but had quit smoking.

"**Current smokers**": have smoked 100 cigarettes in their lifetime and in the past 30 days

03. METODOLOGI (3)

KATEGORI KEPARAHAN PENYAKIT COVID-19

Based on medical records from the Muhammadiyah COVID-19 Command Center (MCCC) regarding the status of patient care at the last time of treatment at Muhammadiyah-'Aisyah Hospital (RSMA). These were grouped into: **1) Outpatient (for patients with no symptoms and mild symptoms, 2) Inpatients (for patients with severe symptoms, and 3) Intensive Care Unit or ICU (for patients with critical conditions).**

04 Hasil (1)

Tabel 1. Distribusi Jumlah Responden/Pasien berdasarkan asal Rumah Sakit

		Frequency	Percent	Cumulative Percent
Valid	RS Ahmad Dahlan Kediri	3	.6	.6
	RS PKU Muhammadiyah Gombong	9	1.8	2.4
	RS PKU Muhammadiyah Roemani Semarang	61	12.4	14.9
	RS PKU Muhammadiyah Wonosobo	10	2.0	16.9
	RS PKU Sruweng	11	2.2	19.2
	RS Siti Khotijah Sepanjang Sidoarjo	9	1.8	21.0
	RS Universitas Muhammadiyah Malang	3	.6	21.6
	RSI Jakarta Cempaka Putih	28	5.7	27.3
	RSI PKU Muhammadiyah Palangkaraya	62	12.7	40.0
	RS Aisyiyah Kudus	43	8.8	48.8
	RSI Jakarta Pondok Kopi	27	5.5	54.3
	RS PKU Muhammadiyah Mayong	95	19.4	73.7
	RSI Muhammadiyah Kendal	20	4.1	77.8
	RS PKU Muhammadiyah Temanggung	21	4.3	82.0
	RS Aisyiyah Malang	66	13.5	95.5
	RS PKU Muhammadiyah Gamping	22	4.5	100.0
	Total	490	100.0	

04 Hasil (2)

Table 2. Responden Characteristics

Table 1. Respondent Characteristics

Variable	Total		Current smokers		Former smokers		Never smokers	
	n	%	n	%	n	%	n	%
Total	490	100	84	17.1	64	13.1	342	69.8
Sex								
Male	230	46.9	77	91.7	63	98.4	90	26.3
Female	260	53.1	7	8.3	1	1.6	252	73.7
Age group (years)								
> 60	91	18.6	17	20.2	10	15.6	64	18.7
46 – 60	195	39.8	35	41.7	29	45.3	131	38.3
26 – 45	169	34.5	25	29.8	24	37.5	120	35.1
< 26	35	7.1	7	8.3	1	1.6	27	7.9
Chronic diseases								
Diabetes	75	15.3	15	17.9	16	25.0	44	12.9
Coronary Heart Diseases	41	8.4	9	10.7	9	14.1	23	6.7
Hypertension	82	16.7	17	20.2	20	31.3	45	13.2
Obstructive Chronic Lung diseases	16	3.3	1	1.2	3	4.7	12	3.5
Chronic liver diseases	7	1.4	3	3.6	1	1.6	3	0.9
Time smoking was stopped by former smoker								
More than 10 years ago	-	-	-	-	19	29.69	-	-
5 – 10 years ago	-	-	-	-	9	14.06	-	-
1 – 5 years ago	-	-	-	-	24	37.50	-	-
Less than 1 year	-	-	-	-	12	18.75	-	-
Cigarette number per day	-	-	9.99 ± 4.82*		-	-	-	-
Duration of smoking (years)	-	-	29.68 ± 13.47*		-	-	-	-

*Mean and Standard Deviation

04 Hasil (3)

Table 3. Difference of respondents' smoking status based on demographics and comorbidities

Variables	Smoking Status						p-value
	Current Smoker		Former Smoker		Never Smoker		
	n	%	n	%	n	%	
Gender							
Male	77	91.67	63	98.44	90	26.32	**0.000**
Female	7	8.33	1	1.56	252	73.68	
Age							
≥ 60 years	18	21.43	12	18.75	73	21.35	0.892
< 60 years	66	78.57	52	81.25	269	78.65	
Diabetes Mellitus (DM)							
Yes	15	17.86	16	25.00	44	12.87	**0.036**
No	69	82.14	48	75.00	298	87.13	
Coronary Heart Disease (CHD)							
Yes	9	10.71	9	14.06	23	6.73	0.105
No	75	89.29	55	85.94	319	93.27	
Hypertension							
Yes	17	20.24	20	31.25	45	13.16	**0.001**
No	67	79.76	44	68.75	297	86.84	
Malignancy							
Yes	0	0.00	0	0.00	2	0.58	0.648
No	84	100.00	64	100.00	340	99.42	
Immunological Disorder							
Yes	1	1.19	0	0.00	2	0.58	0.650
No	83	98.81	64	100.00	340	99.42	
Chronic Kidney Disease							
Yes	2	2.38	5	7.81	8	2.34	0.061
No	82	97.62	59	92.19	334	97.66	
Chronic Liver Diseases							
Yes	3	3.57	1	1.56	3	0.88	0.175
No	81	96.43	63	98.44	339	99.12	
COPD (Chronic Obstructive Pulmonary Disease)							
Yes	1	1.19	3	4.69	12	3.51	0.445
No	83	98.81	61	95.31	330	96.49	

04 Hasil (4)

Table 4. Bivariate analysis of demographic status, comorbidities status and treatment received

Variable	Treatment received						β	OR	95% CI		p-value
	ICU		Inpatients		Outpatients				Lower	Upper	
	n	%	n	%	n	%					
Demographic											
Age											
≥ 60 years	10	9.7	85	82.5	8	7.8	-0.91	2.49	1.25	4.94	**0.01**
< 60 years	12	3.1	331	85.5	44	11.4					
Sex											
Male	12	5.2	196	85.2	22	9.6	-0.24	1.28	0.77	2.10	0.34
Female	10	3.8	220	84.6	30	11.5					
Comorbidities											
Diabetes Mellitus											
Yes	8	10.7	67	89.3	0	0.0	-1.62	5.05	2.34	10.91	**0.01**
No	14	3.4	349	84.1	52	12.5					
Coronary Heart Disease (CHD)											
Yes	3	7.3	37	90.2	1	2.4	-0.92	2.51	0.99	6.39	0.05
No	19	4.2	379	84.4	51	11.4					
Hypertension											
Yes	8	9.8	71	86.6	3	3.7	-1.17	3.23	1.56	6.69	**0.02**
No	14	3.4	345	84.6	49	12.0					
Malignancy											
Yes	0	0.0	2	100.0	0	0.0	-0.46	1.59	0.03	87.32	0.82
No	22	4.5	414	84.8	52	10.7					
Immunological Disorder											
Yes	0	0.0	3	100.0	0	0.0	-0.47	1.59	0.06	42.09	0.78
No	22	4.5	413	84.8	52	10.7					
Chronic Kidney Disease											
Yes	3	20.0	12	80.0	0	0.0	-1.89	6.65	1.87	23.64	**0.03**
No	19	4.0	404	85.1	52	10.9					
Chronic Liver Disease											
Yes	1	14.3	6	85.7	0	0.0	-1.48	4.41	0.65	29.87	0.13
No	21	4.3	410	84.9	52	10.8					
COPD (Chronic Obstructive Pulmonary Disease)											
Yes	2	12.5	14	87.5	0	0.0	-1.41	4.11	1.09	15.56	**0.04**
No	20	4.2	402	84.8	52	11.0					

ARTICLE I

ASIA PACIFIC JOURNAL OF PUBLIC HEALTH/APJPH (SCOPUS Q2)

Short Report

Significance of Chronic Diseases and Smoking Behavior in the Development of Acute Respiratory Distress Syndrome Among Hospitalized COVID-19 Patients in Indonesia

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Abstract

Acute respiratory distress syndrome (ARDS) is one of the main causes of high mortality among coronavirus disease 2019 (COVID-19) patients. This study aimed at determining the association between presence of chronic diseases and smoking behaviors with the development of ARDS among hospitalized COVID-19 patients in Indonesia. This study was carried out in 15 Muhammadiyah-'Aisyiyah–affiliated COVID-19 referral hospitals in Indonesia. Four hundred ninety participants who tested positive for the COVID-19 were recruited in this study. Demographic data, history of chronic diseases, and the development of ARDS were retrieved from hospital patient records. Information about the smoking behavior was collected after respondents were discharged from the hospital. Presence of chronic diseases such as diabetes, chronic heart disease, hypertension, and chronic liver diseases were significantly associated with the development of ARDS. In a similar regard, patients who currently smoked had a 5 times greater risk of developing ARDS compared with those who never smoked.

Keywords

ARDS, chronic diseases, COVID-19, developing countries, smoking behavior

What We Already Know

- Smoking is associated with the severity of COVID-19.
- Chronic comorbidities were risk factors for severe COVID-19.
- Old age increases the risk of development of ARDS in COVID-19 patients.

What This Article Adds

- The presence of chronic diseases found to be significantly associated with the development of ARDS among COVID-19 patients.
- Smoking habits increased the risk of developing ARDS among COVID-19 patients.
- Educating the public regarding the increased risks smoking contributes towards the severity of COVID-19 needs to be communicated continuously.

Introduction

A year after its appearance from late December 2019 in China until the end of 2020, coronavirus disease 2019 (COVID-19) cases had surpassed 84 million cases globally, causing nearly 2 million lost lives.[1] Smoking and comorbidities were reported as factors that were significantly related with the risk of severe COVID-19.[2] Although there are studies done about the relationship between smoking and COVID-19 severity, these studies had only focused on the general severity, whereas those that focused on the presence of individual symptoms such as the development of acute respiratory distress syndrome (ARDS) remained few. ARDS is one of the main causes of the deaths in patients with COVID-19.[3]

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ARTICLE 2

TOBACCO INDUCED DISEASES /TID (SCOPUS QI)

Short Report

Association between cigarette smoking patterns and severity of COVID-19: Findings from a study in 15 private Hospitals in Indonesia

Emma Rachmawati[1], Mochamad Iqbal Nurmansyah[2], Izza Suraya[1], Ekorini Listiowati[3], Deni W. Kurniawan[1], Abdillah Ahsan[4]

ABSTRACT

INTRODUCTION Indonesia is ranked fourth among countries with the highest smoking rates and has the highest number of male smokers globally. This study aimed to assess the association between cigarette smoking patterns and the severity of COVID-19 among patients in 15 Indonesian hospitals.

METHODS A cross-sectional study was conducted from April to August 2020 using medical records of 490 COVID-19 patients, including the history of their smoking patterns from 15 private referral hospitals in 5 provinces. The severity was defined based on the Guidelines on the Prevention and Control of COVID-19 issued by the Indonesian Ministry of Health, which was indicated by the care provided to patients, namely outpatient, inpatient, and Intensive Care Unit (ICU) services for mild, moderate, and severe symptoms. Smoking patterns were grouped based on adult tobacco use classifications of the Centers for Disease Control and Prevention (CDC). Univariate and bivariate analyses were performed.

RESULTS The results showed that 69.8% of respondents had not smoked cigarettes, 17.1% were active smokers, and 13.1% were former smokers. A significant difference was seen in the number of cigarettes smoked by patients in the ICU, inpatients, and outpatients, among current smokers and passive smokers (p=0.018 and p=0.005, respectively). Furthermore, there was no significant difference in the severity of COVID-19 among current smokers, former smokers, and non-smokers. The time from when smoking was stopped among former smokers was not associated with the severity of COVID-19.

CONCLUSIONS There was no significant difference in COVID-19 severity between groups of smokers. Passive smoking and the number of cigarettes smoked by smokers daily were associated with the severity of COVID-19. Smoke-free policies should be implemented continuously to protect people from the dangers of secondhand smoke.

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KEYWORDS
cigarette smoking, COVID-19, secondhand smoke, developing countries

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INTRODUCTION

Indonesia is among the countries severely affected by the COVID-19 pandemic. During 2020, data show that Indonesia recorded the most COVID-related deaths in

Presence of chronic diseases such as diabetes, chronic heart disease, hypertension, and chronic liver diseases were significantly associated with the development of ARDS. In a similar regard, patients who currently smoked had a 5 times greater risk of developing ARDS compared with those who never smoked.

04
Hasil (5)

Table 2. Analysis of Factors Associated with the development of ARDS among hospitalized COVID-19 patients

Variable	Acute Respiratory Distress Syndrome				Odds Ratio (95% CI)	p-value
	Yes		No			
	n	%	n	%		
Sex						
Male	13	5.7	217	94.3	3.055 (1.072 – 8.706)	0.037
Female	5	1.9	255	98.1	Ref	
Age group (years)						
> 60	7	7.7	84	92.3	2.939 (1.107 – 7.805)	0.030
< 60	11	2.8	388	97.2	Ref	
Diabetes						
Yes	10	13.3	65	86.7	7.827 (2.979 – 20.561)	0.000
No	8	1.9	407	98.1	Ref	
Coronary Heart Diseases						
Yes	7	17.1	34	82.9	8.198 (2.986 – 22.504)	0.000
No	11	2.4	438	97.6	Ref	
Hypertension						
Yes	9	11.0	73	89.0	5.466 (2.099 – 14.233)	0.001
No	9	2.2	399	97.8	Ref	
Obstructive Chronic Lung Diseases						
Yes	1	6.3	15	93.8	1.792 (0.224 – 14.364)	0.583
No	17	3.6	457	96.4	Ref	
Chronic liver diseases						
Yes	2	28.6	5	71.4	11.675 (2.103 – 64.801)	0.005
No	16	3.3	467	96.7	Ref	
Smoking status						
Current	8	9.5	76	90.5	5.025 (1.773 – 14.286)	0.002
Former	3	4.7	61	95.3	2.352 (0.592 – 9.346)	0.224
Never	7	2.0	335	98.0	Ref	-
Time smoking was stopped by former smoker						
Less than 1 year	1	3.6	27	96.4	2,45 (0,14 – 42,82)	0,538
1 – 5 years ago	1	4.2	23	95.8	2,09 (0,12 – 36,63)	0,614
More than 5 years ago	1	8.3	11	91.7	Ref	-
Duration of smoking among current smoker (years)	28,75 ± 18,84*		29,78 ± 12,94*		1,026**	0,884
Daily number of cigarettes consumed among current smoker	40,30***		63,44***		-2,606 (Z)	0,009

* Mean ± SD
** Mean difference
*** Mean rank

05. Hasil (5)

RESULTS

69.8% of respondents had not smoked cigarettes, 17.1% were active smokers, and 13.1% were former smokers. A significant difference was seen in the number of cigarettes smoked by patients in the ICU, inpatients, and outpatients, among current smokers and passive smokers (p=0.018 and p=0.005, respectively).

there was no significant difference in the severity of COVID-19 among current smokers, former smokers, and non-smokers.

The time from when smoking was stopped among former smokers was not associated with the severity of COVID-19.

CONCLUSIONS

There was no significant difference in COVID-19 severity between groups of smokers. Passive smoking and the number of cigarettes smoked by smokers daily were associated with the severity of COVID-19. Smoke-free policies should be implemented continuously to protect people from the dangers of secondhand smoke.

Table 1. Factors associated with the severity of COVID-19 among participants from 15 private hospitals in Indonesia, 2020 (N=490)

Variable	Total		The severity of COVID-19 based on the care received by the patient						p
			Intensive Care Unit		Inpatient		Outpatient		
	n	%	n	%	n	%	n	%	
Total	490	100.0	22	6.4	416	83.2	52	10.4	
Sex									0.618
Male	230	46.9	12	5.2	196	85.2	22	9.6	
Female	260	53.1	10	3.8	220	84.6	30	11.5	
Age (years)									0.003
≥60	103	21.0	10	9.7	85	82.5	8	7.8	
<60	387	79.0	12	3.1	331	85.5	44	11.4	
Smoking status									0.133
Current	84	17.1	5	6.0	68	81.0	11	13.1	
Former	64	13.1	5	7.8	57	89.1	2	3.1	
Never	342	69.8	12	3.5	291	85.1	39	11.4	
Years from quitting smoking (former smokers)									0.657
>5	28	5.7	1	3.6	26	92.9	1	3.6	
1–5	24	4.9	2	8.3	21	87.5	1	4.2	
<1	12	2.4	2	16.7	10	83.3	0	0.0	
Smoking duration (years), Mean ± SD	29.7 ± 13.5		31.8 ± 21.9		29.8 ± 13.2		28.2 ± 12.0		0.888
Daily number of cigarettes smoked, Mean ± SD	10.0 ± 4.8		14.8 ± 4.3		10.0 ± 4.4		7.7 ± 6.0		0.023
Pack-years cigarette smoking, Mean ± SD	4.1 ± 8.9		9.3 ± 15.3		4.0 ± 8.6		2.5 ± 6.8		0.009
Exposure to cigarette smoke									0.005
Often	108	22.0	11	10.2	82	75.9	15	13.9	
Sometimes	296	60.4	9	3.0	262	88.5	25	8.4	
Seldom/never	86	17.6	2	2.3	72	83.7	12	14.0	

Duration of smoking, number of daily cigarettes smoked, and pack per year cigarettes smoking were tested by ANOVA.

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04 Hasil (6)

Table 6. Results of Ordinal Regression Analysis of Smoking Status and Severity of COVID-19 Patient, stratified by age

Variable	≥ 60 years		< 60 years	
	AOR (95% CI : Lower - Upper)	p-value	AOR (95% CI : Lower -Upper)	p-value
Current	**6,68 (1,17-38,31)**	**0,033**	0,62 (0,30 – 1,31)	0,216
Former	**6,45 (1,00 -41,49)**	**0,050**	1,34 (0,53 – 3,39)	0,527
Never	Ref		Ref	

**after being controlled by comorbidities (Diabetes, Coronary Heart Disease (CHD), Hypertension, COPD (Chronic Obstructive Pulmonary Disease, Chronic Liver disease, Chronic Kidney disease, Malignancy, and Immunological Disorder)

04 Hasil (7)

Table 7. Results of Ordinal Regression Analysis of Smoking Status and Severity of COVID-19 Patient, stratified by gender

Variable	male		female	
	AOR (95% CI : Lower - Upper)	p-value	AOR (95% CI : Lower -Upper)	p-value
Current	1,15 (0,48 – 2,75)	0,754	0,51 (0,07 – 3,62)	0,501
Former	2,19 (0,81 – 5,87)	0,121	0,11 (0,00 – 106,84)	0,534
Never	Ref		Ref	

**after being controlled by comorbidities (Diabetes, Coronary Heart Disease (CHD), Hypertension, COPD (Chronic Obstructive Pulmonary Disease, Chronic Liver disease, Chronic Kidney disease, Malignancy, and Immunological Disorder)

04 Hasil (8)

Table 8. Cross Tabulation and Results of Ordinal Regression Analysis of Smoking Status and Severity of COVID-19 Patient

Variable	Severity Level			Crude		Adjusted**	
	ICU	Inpatients	Outpatients	Crude OR (95% CI : Lower -Upper)	p-value	AOR (95% CI : Lower -Upper)	p-value
Current	5	68	11	1,04 (0,53-2,03)	0,902	0,97 (0,49 – 1,90)	0,919
Former	5	57	2	**2,65 (1,2 -5,87)**	**0,016**	1,82 (0,81 -4,08)	0,147
Never	12	291	39				

**after being controlled by comorbidities (Diabetes, Coronary Heart Disease (CHD), Hypertension, COPD (Chronic Obstructive Pulmonary Disease, Chronic Liver disease, Chronic Kidney disease, Malignancy, and Immunological Disorder)

05. SIMPULAN (1)

148 orang (31,2 %) PASIEN Covid perokok: laki-laki yaitu **140 orang (60,87%).**

Rata-rata merokok kelompok pasien "*current smoker*" : ≥ 9,99 ~ 10 batang rokok perhari.

Perokok terbanyak pada kelompok pasien Covid-19 dengan penyakit comorbid: Hipertensi 82 orang (34,74%), Diabetes 75 orang (31,77%),

Perokok pada kelompok usia ≤ 60 tahun : 118 orang (30,49%).

Perokok pada kategori tingkat keparahan Covid-19:

148 perokok (33,71%) pada rawat inap (439 orang)

13 perokok (25%) pada perawatan ICU (52 orang)

05. SIMPULAN (2)

Status merokok pasien "**current & former smoker**" pada kelompok usia ≥ 60 tahun berhubungan secara signifikan dengan tingkat keparahan pasien Covid-19

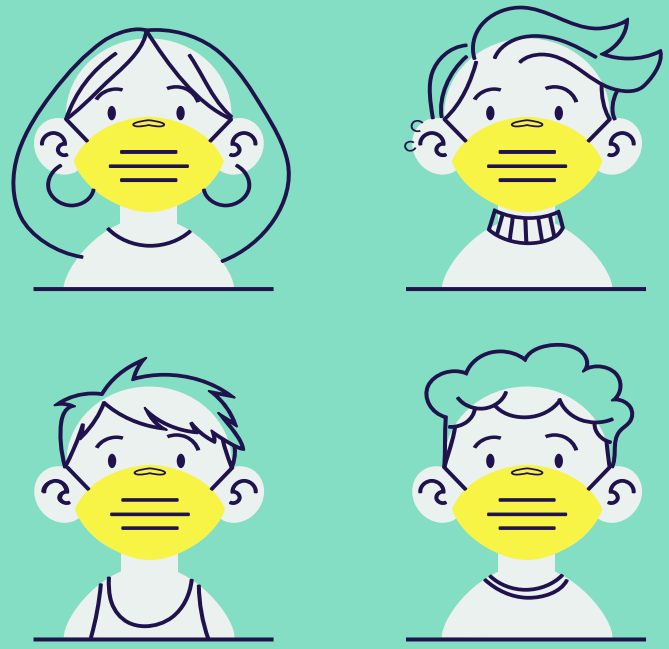
Status merokok pasien "**former smoker**" berhubungan secara signifikan dengan tingkat keparahan pasien Covid-19

The presence of chronic illness and smoking behavior could be used as an early prediction of the development of ARDS among hospitalized COVID-19 patients

06. REKOMENDASI

Status merokok pasien perlu dicantumkan dalam rekam medis pasien Covid-19, sehingga pencegahan peningkatan keparahan Covid-19 dapat diketahui lebih awal, khususnya untuk pasien dengan penyakit komorbid dan berjenis kelamin laki-laki sebagai kelompok yang paling berisiko.

Upaya promotif berupa informasi yang tepat mengenai dampak merokok terhadap tingkat keparahan covid-19 dapat didukung dengan hasil-hasil penelitian sejenis lainnya yang lebih akurat.



ALHAMDULILLAH,
WASSALAMU'ALAIKUM WR WB

Pagi hari ayam berkokok
Saat pandemi covid maupun telah bebas merdeka
Jangan coba-coba menghisap rokok
Demi menjaga paru-paru kita tidak terluka

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