B. Saran

1. Sebaiknya desain penelitian dapat dilakukan secara prospektif, agar dapat diketahui faktor resiko infeksi *P.aeruginosa* pada pasien di RSUP Dr. Wahidin Sudirohusodo Makassar.
2. Hasil ini dapat menjadi acuan untuk melakukan penelitian lanjutan dengan cakupan sampel yang lebih besar, terutama dalam menganalisa serta mengidentifikasi secara fenotip dan genotip bakteri *P. aeruginosa* dengan tipe gen OXA lainnya, untuk mengetahui gambaran tingkat resistensi antibiotik dan penyebaran gen resistensi pada komunitas, sehingga dapat dilakukan program pencegahan infeksi dan pengendalian resistensi antibiotik oleh tenaga kesehatan maupun pemerintah.
3. Mengingat telah terjadi penyebaran gen resistensi yang semakin meningkat diantara bakteri gram negatif, maka diharapkan bagi tenaga kesehatan agar lebih bijak dalam pemberian antibiotik terhadap pasien dan bagi masyarakat dapat mencegah infeksi dengan melakukan pola hidup sehat serta menggunakan antibiotik sesuai dengan petunjuk tenaga kesehatan

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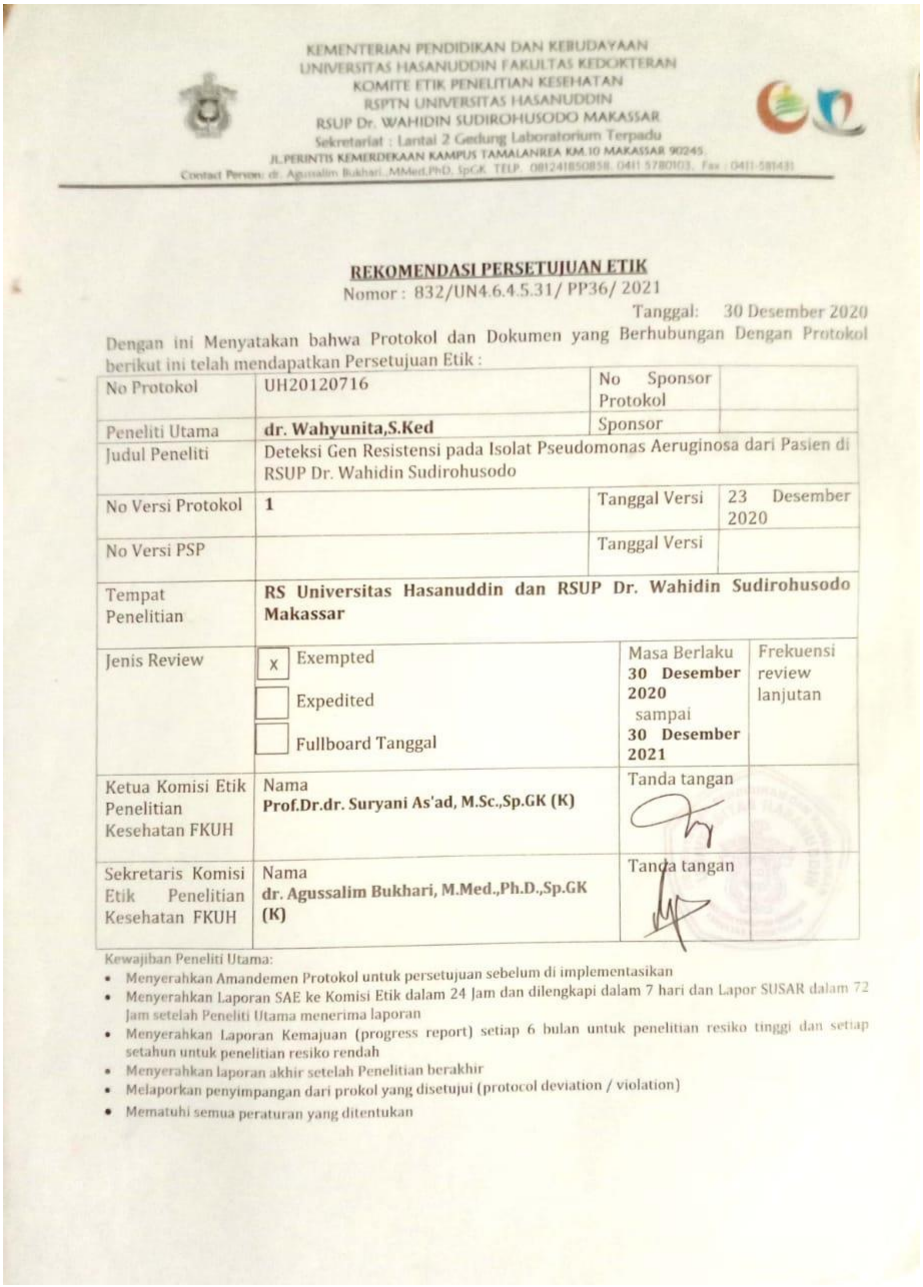
LAMPIRAN

Lampiran 1. Rekomendasi persetujuan Etik



KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN
KOMITE ETIK PENELITIAN KESEHATAN
RSPTN UNIVERSITAS HASANUDDIN
RSUP Dr. WAHIDIN SUDIROHUSODO MAKASSAR
Sekretariat : Lantai 2 Gedung Laboratorium Terpadu
JL.PERINTIS KEMERDEKAAN KAMPUS TAMALANREA KM.10 MAKASSAR 90245.
Contact Person: dr. Agussalim Bukhari, MMed.PhD. SpGK. TELP. 081241850858, 0411 5780103, Fax : 0411-581431

REKOMENDASI PERSETUJUAN ETIK

Nomor : 832/UN4.6.4.5.31/ PP36/ 2021

Tanggal: 30 Desember 2020

Dengan ini Menyatakan bahwa Protokol dan Dokumen yang Berhubungan Dengan Protokol berikut ini telah mendapatkan Persetujuan Etik :

No Protokol	UH20120716	No Sponsor Protokol	
Peneliti Utama	**dr. Wahyunita,S.Ked**	Sponsor	
Judul Peneliti	Deteksi Gen Resistensi pada Isolat Pseudomonas Aeruginosa dari Pasien di RSUP Dr. Wahidin Sudirohusodo		
No Versi Protokol	**1**	Tanggal Versi	23 Desember 2020
No Versi PSP		Tanggal Versi	
Tempat Penelitian	**RS Universitas Hasanuddin dan RSUP Dr. Wahidin Sudirohusodo Makassar**		
Jenis Review	[x] Exempted [ ] Expedited [ ] Fullboard Tanggal	Masa Berlaku **30 Desember 2020** sampai **30 Desember 2021**	Frekuensi review lanjutan
Ketua Komisi Etik Penelitian Kesehatan FKUH	Nama **Prof.Dr.dr. Suryani As'ad, M.Sc.,Sp.GK (K)**	Tanda tangan	
Sekretaris Komisi Etik Penelitian Kesehatan FKUH	Nama **dr. Agussalim Bukhari, M.Med.,Ph.D.,Sp.GK (K)**	Tanda tangan	

Kewajiban Peneliti Utama:

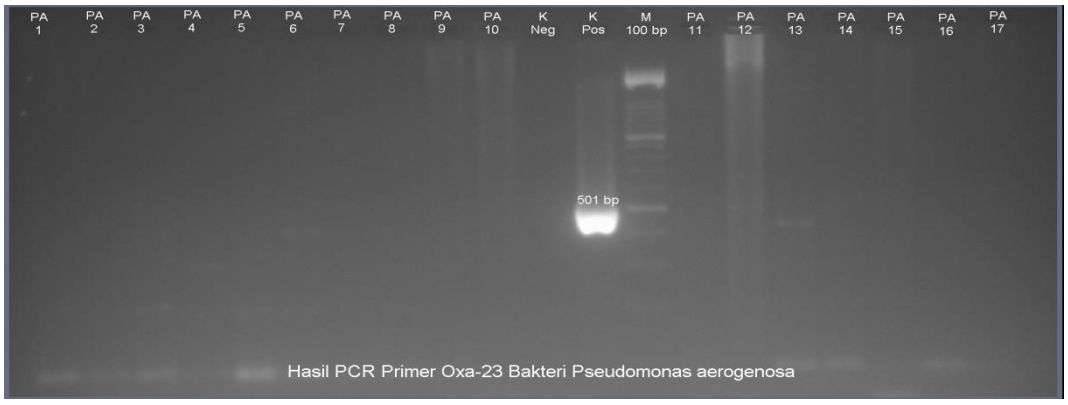
- Menyerahkan Amandemen Protokol untuk persetujuan sebelum di implementasikan
- Menyerahkan Laporan SAE ke Komisi Etik dalam 24 Jam dan dilengkapi dalam 7 hari dan Lapor SUSAR dalam 72 Jam setelah Peneliti Utama menerima laporan
- Menyerahkan Laporan Kemajuan (progress report) setiap 6 bulan untuk penelitian resiko tinggi dan setiap setahun untuk penelitian resiko rendah
- Menyerahkan laporan akhir setelah Penelitian berakhir
- Melaporkan penyimpangan dari prokol yang disetujui (protocol deviation / violation)
- Mematuhi semua peraturan yang ditentukan

Lampiran 2. Gambar Penelitian dan Hasil Elektroforesis

Gambar 1. Sampel Hasil Ekstraksi DNA

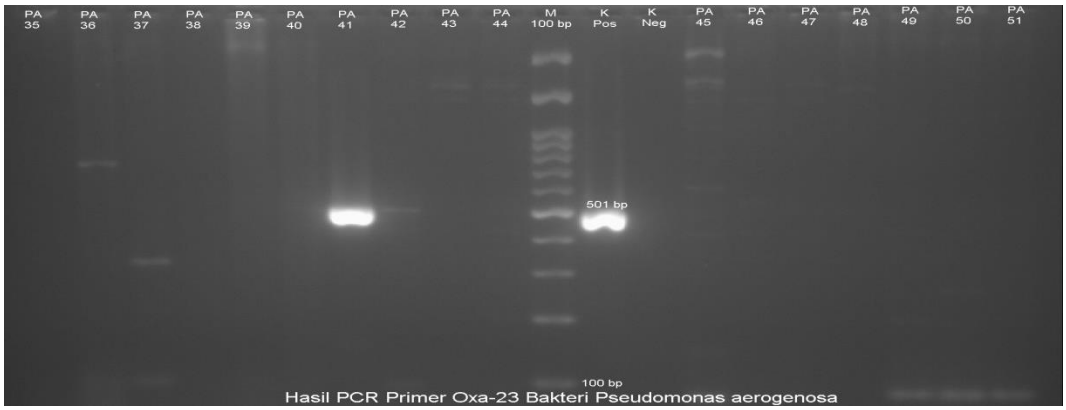
Gambar 2. Proses Running PCR

Gambar 3. Proses Elektroforesis

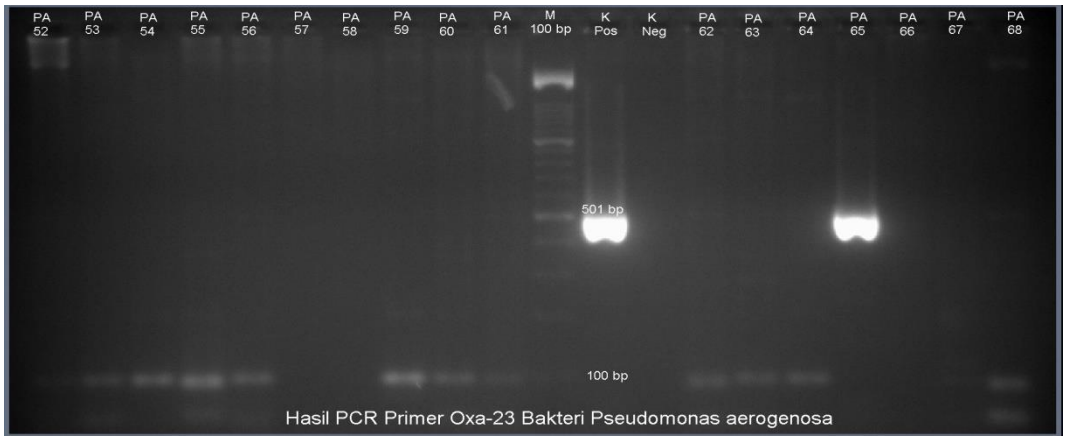


Gambar 4. Hasil elektroforesis produk PCR Isolat *P.aeruginosa* 1-17 gen OXA23 dengan marker 100 bp.

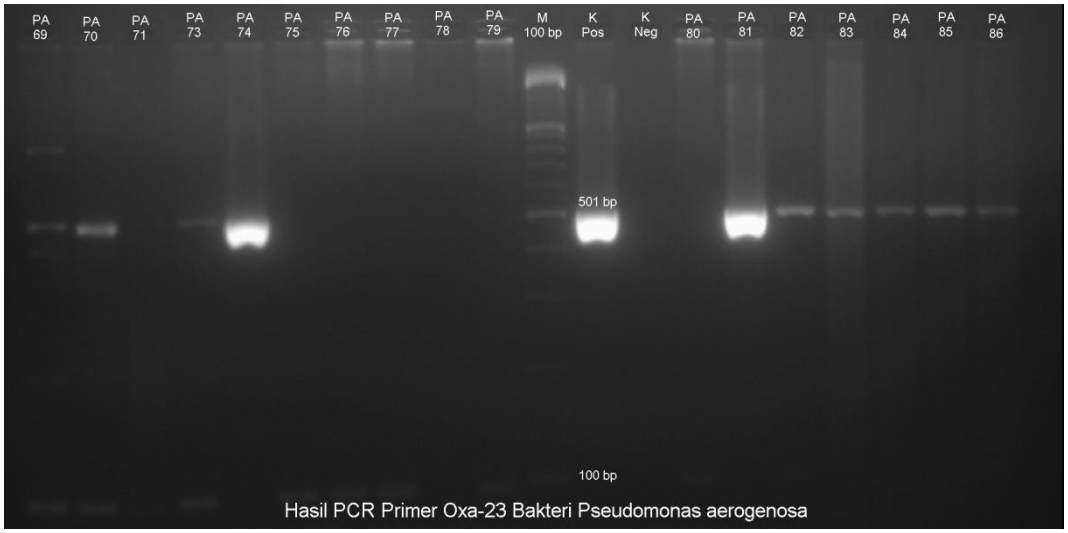
Gambar 5. Hasil elektroforesis produk PCR Isolat *P.aeruginosa* 18-34 gen OXA23 dengan marker 100 bp.



Gambar 6. Hasil elektroforesis produk PCR Isolat *P.aeruginosa* gen 35-51 OXA23 dengan marker 100 bp.



Gambar 7. Hasil elektroforesis produk PCR Isolat *P.aeruginosa* 52-68 gen OXA23 dengan marker 100 bp.



Gambar 8. Hasil elektroforesis produk PCR Isolat *P.aeruginosa* 69-86 gen OXA23 dengan marker 100 bp

Lampiran 3. Tabel Hasil Uji Sensitivitas Antibiotik dan PCR

kode Lab	CAZ	IMI	MEM	DORI	TZP	AK	GN	Hasil PCR OXA-23
WS 1	S	R	R	R	S	S	S	Negatif
WS 2	S	R	R	R	S	S	S	Negatif
WS 3	S	S	S	S	I	S	S	Negatif
WS 4	S	-	R	-	-	S	S	Negatif
WS 5	S	-	S	-	S	S	S	Negatif
WS 6	S	S	S	S	S	S	S	Negatif
WS 7	S	-	S	-	S	S	S	Negatif
WS 8	S	>=16 R	4 I	>=8 R	8 S	<=2 S	<=1 S	Negatif
WS 9	S	S	S	S	S	S	S	Negatif
WS 10	S	-	S	-	S	S	S	Negatif
WS 11	S	S	S	S	S	S	S	Negatif
WS 12	S	S	S	S	S	S	S	Negatif
WS 13	S	S	S	S	S	S	S	Negatif
WS 14	R	R	S	I	-	S	S	Negatif
WS 15	S	S	S	S	S	S	S	Negatif
WS 16	S	S	S	S	S	S	S	Negatif
WS 17	S	S	S	S	-	S	S	Negatif
WS 18	S	S	S	S	I	S	S	Negatif
WS 19	R	-	S	-	-	S	S	Negatif
WS 20	R	S	S	S	-	S	S	Negatif
WS 21	R	-	S	-	-	S	S	Negatif
WS 22	S	S	S	S	S	S	S	Negatif
WS 23	S	S	S	S	S	S	S	Negatif
WS 24	S	-	S	-	S	S	I	Negatif
WS 25	S	-	S	-	S	S	S	Negatif
WS 26	S	S	S	S	S	S	S	Negatif
WS 27	S	R	R	S	S	S	S	Negatif
WS 28	S	R	S	S	S	S	S	Negatif
WS 29	S	-	S	S	S	S	S	Negatif
WS 30	S	S	S	S	S	S	S	Negatif
WS 31	S	R	R	R	-	S	S	Negatif
WS 32	S	-	S	S	S	S	S	Negatif
WS 33	S	S	S	S	S	S	S	Negatif
WS 34	S	S	S	S	S	S	S	Negatif
WS 35	S	S	S	S	S	S	S	Negatif
WS 36	S	S	S	S	S	S	S	Negatif
WS 37	S	S	S	S	S	S	S	Negatif

WS 38	S	-	S	-	S	S	S	Negatif
WS 39	R	R	I	R	-	S	S	Positif
WS 40	I	R	R	R	-	S	I	Positif
WS 41	S	S	S	S	S	S	S	Negatif
WS 42	S	S	S	S	S	S	S	Negatif
WS 43	S	S	S	S	S	S	S	Negatif
WS 44	S	S	S	S	S	S	S	Negatif
WS 45	S	S	S	S	S	S	S	Negatif
WS 46	S	S	S	S	S	S	S	Negatif
WS 47	R	R	R	R	R	R	R	Negatif
WS 48	I	S	S	S	I	S	S	Negatif
WS 49	S	R	R	R	I	R	R	Negatif
WS 50	R	I	I	I	R	S	S	Negatif
WS 51	4 S	2 S	<=0.25 S	<=0.12 S	8 S	<=2 S	<=1 S	Negatif
WS 52	4 s	2 S	1 S	2 S	8 S	<=2 S	<=1 S	Negatif
WS 53	32 R	2 R	4 I	4 I	64 I	<=2 S	<=1 S	Negatif
WS 54	4 S	2 S	1 S	2 S	16 S	<=2 S	<=1 S	Negatif
WS 55	4 S	2 S	<=0.25 S	<=0.12 S	8 S	<=2 S	<=1 S	Negatif
WS 56	>=64 R	2 S	1 S	2 S	>=128 R	<=2 S	<=1 S	Negatif
WS 57	4 S	2 S	0.5 S	0.5 S	8 S	<=2 S	<=1 S	Negatif
WS 58	>=64 R	2 S	1 S	1 S	>=128 R	<=2 S	<=1 S	Negatif
WS 59	2 S	2 S	<=0.25 S	<=0.12 S	<=4 S	<=2 S	<=1 S	Negatif
WS 60	8 S	2 S	<=0.25 S	0.5 S	8 S	<=2 S	<=1 S	Negatif
WS 61	2 S	2 S	1 S	1 S	8 S	<=2 S	<=1 S	Negatif
WS 62	4 S	2 S	<=0.25 S	0.5 S	8 S	<=2 S	<=1 S	Negatif
WS 63	>=64 R	>=16 R	>=16 R	>=8 R	64 I	<=2 S	2 S	Positif
WS 64	8 S	2 S	<=0.25 S	<=0.12 S	>=128 R	<=2 S	2 S	Negatif
WS 66	32 R	2 S	0.5 S	0.5 S	64 I	16 S	<=1 S	Negatif
WS 67	16 I	0.5 S	1 S	0.25 S	64 I	8 S	>=16 R	Negatif
WS 68	>=64 R	>=16 R	8 R	>=8 R	>=128 R	8 S	<=1 S	Positif

WS 69	>=64 R	2 S	1 S	0.25 S	64 I	16 S	2 S	Positif
WS 70	4 S	2 S	<=0.25 S	<=0.12 S	<= 4 S	16 S	8 I	Negatif
WS 71	2 S	-	<=0.25 S	-	8 S	<=2 S	2 S	Negatif
WS 73	>=64 R	>=16 R	>=16 R	>=8 R	>=128 R	>=64 R	>=16 R	Positif
WS 74	32 R	2 S	1 S	1 S	>=128 R	8 S	2 S	Positif
WS 75	8 S	<=0.25 S	<=0.25 S	<=0.12 S	16 S	<=2 S	<=1 S	Negatif
WS 76	2 S	2 S	<=0.25 S	0.5 S	8 S	<=2 S	<=1 S	Negatif
WS 77	>=64 R	2 S	1 S	1 S	>=128 R	<=2 S	2 S	Negatif
WS 78	>=64 R	>=16 R	>=16 R	>=8 R	>=128 R	<=2 S	<=1 S	Negatif
WS 79	>=64 R	2 S	1 S	1 S	>=128 R	<=2 S	2 S	Negatif
WS 80	4 S	2 S	>=16 R	>=8 R	64 I	<=2 S	<=1 S	Negatif
WS 81	16 I	1 S	<=0.25 S	0.25 S	-	<=2 S	<=1 S	Positif
WS 82	4 S	-	<=0.25 S	-	<=4 S	4 S	4 S	Positif
WS 83	32 R	-	0.5 S	-	>=128 R	<=2 S	2 S	Positif
WS 84	4 S	-	1 S	-	16 S	<=2 S	<=1 S	Positif
WS 85	32 R	2 S	1 S	0.5 S	>=128 R	<=2 S	<=1 S	Positif
WS 86	32 R	-	>=16 R	-	32 I	<=2 S	<=1 S	Positif
WS 87	>=64 R	2 S	1 S	1 S	>=128 R	<=2 S	2 S	Positif

1