

## DAFTAR PUSTAKA

1. Raja SN, Carr DB, Cohen M, Finnerup NB, Flor H, Gibson S, et al. The revised International Association for the Study of Pain definition of pain: concepts, challenges, and compromises. *Pain*. 2020 Sep;161(9):1976–82.
2. Alzahrani HA. Patterns of Prescribing Postoperative Analgesic Medication After Thyroid Surgery: A Retrospective Cohort Study. *Int J Gen Med*. 2023;405–10.
3. Horn R, Kramer J. Postoperative pain control. 2019.
4. Wicaksono SA, Harahap CO, Sutiyono D, Sasongko H, Limijadi EKS. Perbandingan Kadar Substansi P Serum pada Pasien Pre dan Post Operasi Tiroid yang Diberi Analgetik Bupivakain 0,25% dengan Teknik Bilateral Superficial Cervical Plexus Block (BSCP). *JAI (Jurnal Anestesiologi Indones)*. 2017;9(1):31–7.
5. Tantri AR, Rahmi R, Marsaban AHM, Satoto D, Rahyussalim AJ, Sukmono RB. Comparison of postoperative IL-6 and IL-10 levels following Erector Spinae Plane Block (ESPB) and classical Thoracolumbar Interfascial Plane (TLIP) block in a posterior lumbar decompression and stabilization procedure: a randomized controlled trial. *BMC Anesthesiol*. 2023 Jan;23(1):13.
6. Indra B, Lipoeto NI, Tjong DH, Rahman S. Alteration of Interleukin-4, Interleukin-6 Levels, and Post-operative Pain Intensity. *Open Access Maced J Med Sci*. 2023;11(A):1–7.
7. Chahardahmasumi E, Salehidoost R, Amini M, Aminorroaya A, Rezvanian H, Kachooei A, et al. Assessment of the Early and Late Complication after Thyroidectomy. *Adv Biomed Res*. 2019;8:14.
8. Lukinović J, Bilić M. Overview of Thyroid Surgery Complications. *Acta Clin Croat*. 2020 Jun;59(Suppl 1):81–6.
9. Woldegerima YB, Hailekiros AG, Fitiwi GL. The analgesic efficacy of bilateral superficial cervical plexus block for thyroid surgery under general anesthesia: a prospective cohort study. *BMC Res Notes [Internet]*. 2020;13(1):42. Available from: <https://doi.org/10.1186/s13104-020-4907-7>



JS, Sehgal V. Anesthesia and thyroid surgery: The never ending story. *Indian J Endocrinol Metab*. 2013 Mar;17(2):228–34.

}, Mahboobi SK. Regional anesthetic blocks. 2020;

12. Sharma J, Gupta R, Kumari A, Mahajan L, Singh J. A Comparative Study of 0.25% Levobupivacaine, 0.25% Ropivacaine, and 0.25% Bupivacaine in Paediatric Single Shot Caudal Block. *Anesthesiol Res Pract*. 2018;2018:1486261.
13. Bajwa SJS, Kaur J. Clinical profile of levobupivacaine in regional anesthesia: A systematic review. *J Anaesthesiol Clin Pharmacol*. 2013 Oct;29(4):530–9.
14. Garmon EH, Huecker MR. Topical, local, and regional anesthesia and anesthetics. In: *StatPearls [Internet]*. StatPearls Publishing; 2023.
15. Burlacu CL, Buggy DJ. Update on local anesthetics: focus on levobupivacaine. *Ther Clin Risk Manag*. 2008 Apr;4(2):381–92.
16. Karakış A, Tapar H, Özsoy Z, Suren M, Dogru S, Karaman T, et al. Perioperative analgesic efficacy of bilateral superficial cervical plexus block in patients undergoing thyroidectomy: a randomized controlled trial. *Rev Bras Anesthesiol*. 2019;69:455–60.
17. Beynon ME, Pinneri K. An Overview of the Thyroid Gland and Thyroid-Related Deaths for the Forensic Pathologist. *Acad forensic Pathol*. 2016 Jun;6(2):217–36.
18. Mnatsakanian A, Al Khalili Y. *Anatomy, head and neck, thyroid muscles*. 2019.
19. White AM, Lasrado S. *Anatomy, head and neck, thyroid arteries*. 2020.
20. Allen E, Fingeret A. *Anatomy, head and neck, thyroid*. 2017.
21. Roesch ZK, Tadi P. *Anatomy, head and neck, neck*. 2019.
22. Armstrong M, Asuka E, Fingeret A. *Physiology, thyroid function*. 2019.
23. Baumgartner C, da Costa BR, Collet T-H, Feller M, Floriani C, Bauer DC, et al. Thyroid Function Within the Normal Range, Subclinical Hypothyroidism, and the Risk of Atrial Fibrillation. *Circulation*. 2017 Nov;136(22):2100–16.
24. De Leo S, Lee SY, Braverman LE. Hyperthyroidism. *Lancet (London, England)*. 2016 Aug;388(10047):906–18.
25. Hansen JT. *Netter's Clinical Anatomy-E-Book*. Elsevier Health Sciences; 2022.
26. Waxenbaum JA, Reddy V, Bordoni B. *Anatomy, head and neck, cervical nerves*. 2019.
27. Radiology Key. Cervical Plexus Block [Internet]. 2016. Available from: <https://radiologykey.com/cervical-plexus-block-2/>
28. Bendtsen TF, Abbas S, Chan V. Ultrasound-Guided Cervical Plexus Nerve Block [Internet]. Nysora. Available from: <https://www.nysora.com/ultrasound-guided-cervical-plexus-block/>
29. Socik AJ, Yeh MW, Wu JX. Perioperative pain management for thyroid thyroid surgery: a systematic review. *Am J Surg*. 2022;223(4):641–51.



30. Chawaka HJ, Teshome ZB. The Underreported Postoperative Suffering after Thyroid Surgery: Dysphagia, Dysphonia, and Neck Pain—A Cross-Sectional Study. Pearl RG, editor. *Anesthesiol Res Pract* [Internet]. 2023;2023:1312980. Available from: <https://doi.org/10.1155/2023/1312980>
31. Xia W, Peng GY, Sheng JT, Zhu FF, Guo JF, Chen WQ. Neuroprotective effect of interleukin-6 regulation of voltage-gated Na<sup>+</sup> channels of cortical neurons is time- and dose-dependent. *Neural Regen Res*. 2015;10(4):610–7.
32. Sebba A. Pain: A Review of Interleukin-6 and Its Roles in the Pain of Rheumatoid Arthritis. *Open access Rheumatol Res Rev*. 2021;13:31–43.
33. Svensson CI. Interleukin-6: A local pain trigger? *Arthritis Res Ther*. 2010;12(5):5–6.
34. Said EA, Al-Reesi I, Al-Shizawi N, Jaju S, Al-Balushi MS, Koh CY, et al. Defining IL-6 levels in healthy individuals: A meta-analysis. *J Med Virol*. 2021;93(6):3915–24.
35. Hsu T-C, Lin C-H, Sun F-J, Chen M-J. Postoperative Serum Levels of Interleukin-6 are Affected by Age in Patients with Colorectal Cancer. *Int J Gerontol* [Internet]. 2017;11(2):75–9. Available from: <https://www.sciencedirect.com/science/article/pii/S1873959817301369>
36. Haddadi K, Abediankenari S, Alipour A, Ghazvini HRG, Jafarpour H, Asadian L, et al. Association between Serum Levels of Interleukin-6 on Pain and Disability in Lumbar Disc Herniation Surgery. *Asian J Neurosurg*. 2020;15(3):494–8.
37. Tantri AR, Sukmono RB, Tobing SDAL, Natali C. Comparing the Effect of Classical and Modified Thoracolumbar Interspinal Plane Block on Postoperative Pain and IL-6 Level in Posterior Lumbar Decompression and Stabilization Surgery. *Anesthesiol Pain Med*. 2022;12(2).
38. Abdelmalak B, Doyle DJ. *Anesthesia for Otolaryngologic Surgery*. Springer; 2014.
39. Kitahara CM, Schneider AB. Epidemiology of Thyroid Cancer. *Cancer Epidemiol Biomarkers Prev a Publ Am Assoc Cancer Res cosponsored by Am Soc Prev Oncol*. 2022 Jul;31(7):1284–97.
40. Bacuzzi A, Dionigi G, Del Bosco A, Cantone G, Sansone T, Di Losa E, et al. Anaesthesia for thyroid surgery: Perioperative management. *Int J Surg* [Internet]. 2008;6:S82–5. Available from: [www.sciencedirect.com/science/article/pii/S1743919108002070](https://www.sciencedirect.com/science/article/pii/S1743919108002070)
- won JY, Hwang BY, Hong JM, Kim TK, Kim HK. Postoperative pain and effects after thyroidectomy: randomized double blind study comparing



- nefopam and ketorolac. *Anesth Pain Med*. 2014;9(2):110–4.
42. Fathir S, Suwarman S, Erlangga ME. Ketorolac Administration with Ketorolac and Bilateral Superficial Cervical Plexus Block's Comparison to Total Post-Thyroidectomy Analgesic Rescue Needs. *Indones J Multidiscip Sci*. 2023;2(8):3013–23.
43. Li X, Yu L, Yang J, Tan H. Multimodal analgesia with ropivacaine wound infiltration and intravenous flurbiprofen axetil provides enhanced analgesic effects after radical thyroidectomy: a randomized controlled trial. *BMC Anesthesiol* [Internet]. 2019;19(1):167. Available from: <https://doi.org/10.1186/s12871-019-0835-2>
44. Zhe Xu C, Can G, Xin W, Jiang Sheng H. Drugs used in regional block analgesia for thyroidectomy: A network meta-analysis of randomized controlled trials. *Int J Surg* [Internet]. 2022;100:106598. Available from: <https://www.sciencedirect.com/science/article/pii/S1743919122003752>
45. Elmaddawy AEA, Mazy AE. Ultrasound-guided bilateral superficial cervical plexus block for thyroid surgery: The effect of dexmedetomidine addition to bupivacaine-epinephrine. *Saudi J Anaesth*. 2018;12(3):412–8.
46. Senapathi TGA, Widnyana IMG, Aribawa IGM, Wiryana M, Sinardja IK, Nada IKW, et al. Ultrasound-guided bilateral superficial cervical plexus block is more effective than landmark technique for reducing pain from thyroidectomy. *J Pain Res*. 2017;10:1619–22.
47. Hipskind JE, Ahmed AA. Cervical plexus block. 2020.
48. DrugBank. Levobupivacaine [Internet]. 2023. Available from: <https://go.drugbank.com/drugs/DB01002>
49. Cherobin ACFP, Tavares GT. Safety of local anesthetics. *An Bras Dermatol* [Internet]. 2020;95(1):82–90. Available from: <https://doi.org/10.1016/j.abd.2019.09.025>
50. Zhong B. How to calculate sample size in randomized controlled trial? *J Thorac Dis*. 2009 Dec;1(1):51–4.
51. Kaki AM. Superficial and Deep Cervical Plexus Blocks. *Pain A Rev Guid*. 2019;453–6.
52. Nishie H. Superficial cervical plexus block (landmark, ultrasound-guided). *Nerve Blockade Interv Ther*. 2019;79–81.



L, Miller KD, Jemal A. Cancer statistics, 2015. *CA Cancer J Clin*. 2015 65(1):5-29.

hi S, Boyle P, Maisonneuve P, La Vecchia C, Burt AD, Kerr DJ,

- MacFarlane GJ. The epidemiology of thyroid carcinoma. *Crit Rev Oncog*. 1993;4(1):25-52.
55. LeClair K, Bell KJL, Furuya-Kanamori L, Doi SA, Francis DO, Davies L. Evaluation of Gender Inequity in Thyroid Cancer Diagnosis: Differences by Sex in US Thyroid Cancer Incidence Compared With a Meta-analysis of Subclinical Thyroid Cancer Rates at Autopsy. *JAMA Intern Med*. 2021 Oct 01;181(10):1351-1358.
56. Yang, L., Shen, W. & Sakamoto, N. (2013) Population-based study evaluating and predicting the probability of death resulting from thyroid cancer and other causes among patients with thyroid cancer. *Journal of Clinical Oncology*, 31, 468-474.
57. Oyer, S.L., Smith, V.A. & Lentsch, E.J. (2012) Reevaluating the prognostic significance of age in differentiated thyroid cancer. *Otolaryngology – Head and Neck Surgery*, 147, 221-226.
58. Haugen BR, Alexander EK, Bible KC, et al. 2015 American Thyroid Association Management Guidelines for Adult Patients with Thyroid Nodules and Differentiated Thyroid Cancer: The American Thyroid Association Guidelines Task Force on Thyroid Nodules and Differentiated Thyroid Cancer. *Thyroid* 2016;26:1-133.
59. Matsuzu K, Sugino K, Masudo K, et al. Thyroid lobectomy for papillary thyroid cancer: long-term follow-up study of 1,088 cases. *World J Surg* 2014;38:68-79.
60. Hay ID, Bergstralh EJ, Goellner JR, et al. Predicting outcome in papillary thyroid carcinoma: development of a reliable prognostic scoring system in a cohort of 1779 patients surgically treated at one institution during 1940 through 1989. *Surgery* 1993;114:1050-7; discussion 1057-8.
61. Hay ID, Thompson GB, Grant CS, et al. Papillary thyroid carcinoma managed at the Mayo Clinic during six decades (1940-1999): temporal trends in initial therapy and long-term outcome in 2444 consecutively treated patients. *World J Surg* 2002;26:879-85.
62. Ganly I, Nixon IJ, Wang LY, et al. Survival from Differentiated Thyroid Cancer: What Has Age Got to Do with It? *Thyroid* 2015;25:1106-14.
63. Andrieu G, Amrouni H, Robin E, et al. Analgesic efficacy of bilateral superficial cervical plexus block administered before thyroid surgery under general anaesthesia. *Br J Anaesth*. 2007;99:561–566. doi: 10.1093/bja/aem230.



## LAMPIRAN

### Lampiran 1. Formulir Persetujuan

#### Formulir Persetujuan Setelah Penjelasan (*Consent*)

Saya yang bertandatangan di bawah ini :

Nama : \_\_\_\_\_  
 Umur : \_\_\_\_\_ tahun  
 Alamat : \_\_\_\_\_  
 \_\_\_\_\_

setelah mendengar/membaca dan mengerti penjelasan yang diberikan mengenai tujuan, manfaat, dan apa yang akan dilakukan pada penelitian ini, menyatakan setuju untuk ikut dalam penelitian ini secara sukarela tanpa paksaan.

Saya tahu bahwa keikutsertaan saya ini bersifat sukarela tanpa paksaan, sehingga saya bisa menolak ikut atau mengundurkan diri dari penelitian ini. Saya berhak bertanya atau meminta penjelasan pada peneliti bila masih ada hal yang belum jelas atau masih ada hal yang ingin saya ketahui tentang penelitian ini.

Saya juga mengerti bahwa semua biaya yang dikeluarkan sehubungan dengan penelitian ini, akan ditanggung oleh peneliti. Saya percaya bahwa keamanan dan kerahasiaan data penelitian akan terjamin dan saya dengan ini menyetujui semua data saya yang dihasilkan pada penelitian ini untuk disajikan dalam bentuk lisan maupun tulisan.

Dengan membubuhkan tandatangan saya di bawah ini, saya menegaskan keikutsertaan saya secara sukarela dalam studi penelitian ini.

Nama	Tanda tangan	Tgl/Bln/Thn
Pasien		
_____	_____	____/____/____
Saksi/Wali		
_____	_____	____/____/____



gan Saksi diperlukan hanya jika Partisipan tidak dapat memberikan consent/persetujuan menggunakan wali yang sah secara hukum, yaitu untuk partisipan berikut:  
 usia di bawah 18 tahun  
 sia lanjut  
 pasien tidak sadar  
 an lain-lain kondisi yang tidak memungkinkan memberikan persetujuan

<b>Penanggung jawab penelitian</b>		<b>Penanggung jawab Medis</b>	
Nama	Agus Purwo Hidayat Dokter Spesialis Anestesi dan Terapi Intensif	Nama	
NPM	C018202002	NIP	
Paraf	_____	Paraf	_____



**Lampiran 2. Data Subjek**

Tanggal Pembedahan	:	Hari	Bulan	Tahun	
1. Kode Subyek	:	P	K		
2. MedRec	:				
3. Nama	:	Ny.			
4. Umur	:		tahun		
5. Tanggal lahir/Umur	:	Hari	Bulan	Tahun	Umur
6. Alamat	:				
7. BB/TB dan BSI	:	kg	cm		
8. Interleukin-6	:				
9. Diagnosis	:				
10. Tindakan	:	<b><i>Ishmolobektomi</i></b>			
Premedikasi Per-Oral 2 jam sebelum Tindakan.					
11. Paracetamol 1000 mg	:	YA	TIDAK		
12. Tekanan Darah Sistolik	:			mmHg	
13. Tekanan Darah Diastolik	:			mmHg	
14. Mean Arterial Pressure	:				mmHg
15. Nadi	:				x/m
16. Respirasi	:				x/m
17. Saturasi Oksigen	:				%
18. Suhu	:				°C
Informed Consent	:	YA	TIDAK		
Nama Petugas/Paraf	:	Nama			Paraf



### Lampiran 3. Data Intra-Operatif

Kode Subyek	P	K		
-------------	---	---	--	--

	Waktu (Menit)	0	5	10	15	20	25	30	40	60	...
1.	TDS (mmHg)										
2.	TDD (mmHg)										
3.	MAP (mmHg)										
4.	Nadi (x/m)										
5.	SpO2 (%)										
6.	Suhu (°C)										
7.	EKG										
8.	ETT no										
9.	Kristaloid										
10.	Koloid										
11.	Darah										
12.	Urine Output										
13.	Dexamethasone										
14.	Propofol (mg)										
15.	Fentanyl (mcg)										
16.	Rocuronium (mg)										
	Obat tambahan										
	Obat tambahan										
	Obat tambahan										

Keterangan:



kanan Darah Sistolik  
 anan Darah Diastolik  
 an Arterial Pressure  
 aturasi Oksigen  
 ektro Kardio Grafi  
 = RL/NS/dll

Dexamethasone 0,1-0,2 mg/kgBB  
 Propofol 2 mg/kgBB  
 Fentanyl 2 mcg/kgBB  
 Rocuronium 0,6 mg/kgBB

Koloid = Haes/dll

### Lampiran 4. Pembedahan Perlakuan P (BSCPb)

Kode Subyek	P		
-------------	---	--	--

	Waktu (Jam)	0	4	8	12	16	20	24
1.	TDS							
2.	TDD							
3.	MAP							
4.	Nadi							
5.	SpO <sub>2</sub>							
6.	Suhu							
7.	Respirasi							
8.	NRS							
9.	IL-6							
16.	Kristaloid							
17.	Koloid							
18.	Darah (mL)							

Pasien keluar rawat inap dalam keadaan	H / M	hari ke	
--	-------	---------	--

**Keterangan:**

TDS = Tekanan Darah Sistolik  
TDD = Tekanan Darah Diastolik

Kristaloid = RL/NS/dll  
Levobupivacaine 0,125%  
Breakthrough I = Fentanyl 0,5 – 1 mcgr/kgBB

MAP = Mean Arterial Presussure  
SpO<sub>2</sub> = Saturasi Oksigen  
NRS = Numeric Pain Rating Scale  
Koloid = Haes/Gelatin/dll  
Ondansetron 0,1 mg/kgBB



### Lampiran 5. Pembedahan Perlakuan K (Kontrol)

Kode Subyek		K		
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	Waktu (Jam)	0	4	8	12	16	20	24
1.	TDS							
2.	TDD							
3.	MAP							
4.	Nadi							
5.	SpO2							
6.	Suhu							
7.	Respirasi							
8.	NRS							
9.	IL-6							
16.	Kristaloid							
17.	Koloid							
18.	Darah (mL)							
	Waktu (Jam)	0	4	8	12	16	20	24
1.	TDS							
2.	TDD							
3.	MAP							
4.	Nadi							
5.	SpO2							
6.	Suhu							
7.	Respirasi							
8.	NRS							
9.	IL - 6							
16.	Kristaloid							
17.	Koloid							
18.	Darah (mL)							



keluar rawat inap dalam keadaan	H / M	hari ke	
---------------------------------	-------	---------	--

**Keterangan:**

TDS = Tekanan Darah Sistolik  
TDD = Tekanan Darah Diastolik

Kristaloid = RL/NS/dll

Analgetik = Kristaloid + Ketorolac 0,5 mg/kgBB+Tramadol 1 mg/kgBB

**Breakthrough I** = Fentanyl 0,5 – 1 mcg/kgBB

MAP = Mean Arterial Presussure

SpO<sub>2</sub> = Saturasi Oksigen

NRS = Numeric Pain Rating Scale

Koloid = Haes/Gelatin/dll

Ondansetron 0,1 mg/kgBB



### Lampiran 6. Data Pre-Operasi Kelompok P (BSCPb)

A No	BB	TB	IL-6	Premedikasi		TDS	TDD	MAP	Nadi	RR	SpO2	Intake	Output
	Kg	cm		Ya	Tidak	mmHg	mmHg	mmHg	x/m	x/m	%	mL	mL
1.													
2.													
3.													
4.													
5.													
6.													
7.													
8.													
9.													
10.													
11.													
12.													
13.													
14.													
15.													
16.													
17.													
18.													
19.													
20.													



### Lampiran 7. Data Pre-Operasi Kelompok K (Kontrol)

C	BB	TB	IL-6	Premedikasi		TDS	TDD	MAP	Nadi	RR	SpO2	Intake	Output
	kg	cm		Ya	Tidak	mmHg	mmHg	mmHg	x/m	x/m	%	mL	mL
1.													
2.													
3.													
4.													
5.													
6.													
7.													
8.													
9.													
10.													
11.													
12.													
13.													
14.													
15.													
16.													
17.													
18.													
19.													
20.													



### Lampiran 8. Data Pasca Pembedahan pada Kelompok P (BSCPb)

P	Jam	0	4	8	12	16	20	24
---	-----	---	---	---	----	----	----	----

No	TDS	TDD	MAP	Nadi	RR	NRS	IL-6
	mmHg	mmHg	mmHg	X/m	X/m	1-10	
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							



### Lampiran 9. Data Pasca Pembedahan pada Kelompok K (Kontrol)

<b>K</b>	<b>Jam</b>	<b>0</b>	<b>4</b>	<b>8</b>	<b>12</b>	<b>16</b>	<b>20</b>	<b>24</b>
----------	------------	----------	----------	----------	-----------	-----------	-----------	-----------

No	TDS	TDD	MAP	Nadi	RR	NRS	NLR
	mmHg	mmHg	mmHg	X/m	X/m	1-10	
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							



r:  
Kristaloid  
Koloid  
Darah

UO = urine output  
BC = Balance Cairan

## Lampiran 10. Laporan KTD Serious

Peneliti Utama  
Agus Purwo Hidayat, dr., SpAn-TI.,

Judul Penelitian  
**Efek *Bilateral Superficial Cervical Plexus Block* (BSCPb)  
Terhadap Kadar Interleukin-6 pada Pasien Pasca  
Ishmolobektomi**

Nomor Protokol	-----				
Tanggal Laporan:					
Tanggal Kejadian					
Nomor Subjek	<b>P</b>	<b>K</b>			
KTD Serious:	Hasil Terapi Perlakuan: <input type="checkbox"/> Berhasil <input type="checkbox"/> Sedang berjalan <input type="checkbox"/> Tidak berhasil				
Keparahan	Hubungan dengan <input type="checkbox"/> Obat <input type="checkbox"/> Alat <input type="checkbox"/> Teknik				
<input type="checkbox"/> Kematian <input type="checkbox"/> Mengancam jiwa <input type="checkbox"/> Perawatan memanjang <input type="checkbox"/> Kecacatan/ketidakmampuan <input type="checkbox"/> Kelainan bawaan <input type="checkbox"/> .....	<input type="checkbox"/> tidak berhubungan <input type="checkbox"/> mungkin berhubungan <input type="checkbox"/> sangat mungkin berhubungan <input type="checkbox"/> pasti berhubungan <input type="checkbox"/> tidak diketahui				
Rekomendasi mengubah protokol?	<input type="checkbox"/> tidak <input type="checkbox"/> ya, lampirkan proposal				
Rekomendasi mengubah naskah penjelasan?	<input type="checkbox"/> tidak <input type="checkbox"/> ya, lampirkan proposal				
Dikaji oleh:	Tanggal:				
Komentar:	Tindakan:				



## Lampiran 11. Surat Kelayakan Etik Penelitian


**PEMERINTAH PROVINSI SULAWESI TENGGARA**  
**RUMAH SAKIT UMUM DAERAH BAHTERAMAS**  
 Jln. Kapten Pierre Tendean No. 50 Telp (0401) 3195611 Kendari Kode Pos 93000  
 Email : [admin@rsud-bahteramas.go.id](mailto:admin@rsud-bahteramas.go.id) / Website: [www.rsud-bahteramas.go.id](http://www.rsud-bahteramas.go.id)

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**SURAT KETERANGAN KELAYAKAN ETIK PENELITIAN**  
**Nomor : 41/KEP/RSUD/VII/2024**

Berdasarkan hasil penilaian Komite Etik Penelitian Rumah Sakit Bahteramas Provinsi Sulawesi Tenggara Tanggal 26 Juni Tahun 2024 terhadap Proposal Penelitian yang diajukan oleh atas nama dibawah ini :

Nama	: dr. Agus Purwo Hidayat, Sp.An-TI
NIM.	: C018202002
Jurusan/Program Studi	: Subspesialis Anestesiologi dan Terapi Intensif Konsultan Manajemen Nyeri (KMN).
Institusi	: Universitas Hasanuddin
Judul Penelitian	: Efek Bilateral Superficial Cervical Plexus Block (BSCP) Terhadap Kadar Interleukin-6 pada Pasien Pasca Ishmolobektomi.

Dengan ini menerangkan bahwa proposal penelitian atas nama tersebut diatas dinyatakan **LAYAK ETIK**

Demikian surat keterangan ini diberikan untuk dapat digunakan sebagaimana mestinya.

Kendari, 1 Juli 2024  
 Sekretaris Komite Etik Penelitian,


  
 Dr. H. *[Signature]* Surah, SKM., M.Si., CRA., CRP., CIAP., FISQua  
 NIP. 887908012007011012



## Lampiran 12. Sertifikat



# SERTIFIKAT

DIBERIKAN KEPADA

## dr. Agus Purwo Hidayat, Sp.An

ATAS PARTISIPASINYA SEBAGAI

### PESERTA

PELATIHAN DASAR ETIK PENELITIAN KESEHATAN DAN GOOD CLINICAL PRACTICE (GCP)  
Program Pendidikan Dokter Spesialis (PPDS) Fakultas Kedokteran Universitas Hasanuddin  
Makassar, 23 - 24 September 2021

  
 dr. Uleng Bahrun, SpPK(K), Ph.D  
 Manajer PPDS FKUH

  
 Prof. Dr. dr. Suryani As'ad, M.Sc., SpGK(K)  
 Ketua KFPPK FKUH, RSUII  
 dan RSUP dr. Wahidin Sudirohusodo

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**Pelatihan 23 September 2021**

TOPIK	FASILITATOR
1. Pengantar Etik Penelitian Kesehatan dan Komisi Etik Penelitian Kesehatan	Prof. Dr. dr. Suryani As'ad, M.Sc., SpGK
2. Aspek Etik dalam Penelitian Epidemiologi	Prof. Dr. dr. Suryani As'ad, M.Sc., SpGK
3. Etika Penelitian Herbal dan Pengobatan Tradisional	Prof. Dr. dr. Suryani As'ad, M.Sc., SpGK
4. Etika dalam Penelitian Uji Klinik pada Manusia	dr. Agussalim Bukhari, MMed, PhD, SpGK(K)
5. Persetujuan Setelah Penjelasan (PSP) / Informed Consent (termasuk di dalamnya: Indusemen untuk Subyek Dalam Penelitian Kesehatan)	Dr. dr. Ema Alastiry, SpA(K)
6. Pertimbangan Risiko dan Manfaat dalam Penelitian Biomedik yang Menyangkut Manusia	dr. Uleng Bahrun, PhD, SpPK(K)
7. Etika Dalam Penelitian Kerjasama	Prof. dr. Nasrum Massi, Ph.D, Sp.MK
8. Etik Penelitian Genetika dan BBT	Dr. dr. Berti Nelwan, SpPA, SpF
9. Etik Penggunaan Hewan Percobaan dalam Penelitian Kesehatan	Prof. Dr. drh. Ratmawati Malaka, MSc
10. Mekanisme Pengajuan Ethical Review	dr. Agussalim Bukhari, MMed, PhD, SpGK(K)

**Pelatihan 24 September 2021**

TOPIK	FASILITATOR
1. Cara Uji Klinik Yang Baik (GCP) apa dan bagaimana ?	Prof. Dr. dr. Suryani As'ad, MSc, SpGK(K)
2. Peran dan Tanggung Jawab Peneliti	Prof. Dr. dr. Suryani As'ad, MSc, SpGK(K)
3. Rekrutmen dan Pengelolaan Subjek Uji Klinik	Prof. Dr. dr. Suryani As'ad, MSc, SpGK(K)
4. Deklarasi Helsinki, Applicable Regulatory Requirement	dr. Agussalim Bukhari, M.Med, PhD, SpGK(K)
5. Ketidai Jujuran Dalam Uji Klinik ( Fraud and Misconduct )	Prof. dr. Haerani Rasyid, M.Kes, SpID, KGH, SpGK(K)
6. Post Approval Review (SAR), protocol deviation/violation, amandement)	dr. Agussalim Bukhari, M.Med, PhD, SpGK(K)
7. Peran Dan Tanggungjawab Sponsor	Drs. Hary Wahyu, Apt
8. Regulasi Pelaksanaan Uji Klinik Utk Pengembangan Obat Baru di Indonesia	Drs. Hary Wahyu, Apt
9. Pengelolaan Produk Uji Klinik (Investigational Product Handling )	Drs. Hary Wahyu, Apt
10. Audit Dalam Uji Klinik	Drs. Hary Wahyu, Apt
11. Jenis-jenis dokumen, formulir dan Pengisian Case Report Form	Dr. dr. Irawaty Djaharuddin, SpPK
12. Issue Penting pada Penelitian Kerjasama	Prof. dr. Nasrum Massi, Ph.D, Sp.MK



### Lampiran 13. Tabel Statistik Penelitian

	Group	Shapiro-Wilk Statistic	df	Sig.
Patient's Age	Intervensi	.926	18	.166
	Kontrol	.980	18	.946
ASA	Intervensi	.638	18	<.001
	Kontrol	.624	18	<.001
IL-6 Pre Intervensi	Intervensi	.797	18	.001
	Kontrol	.864	18	.014
IL-6 Intervensi 6 hr	Intervensi	.850	18	.009
	Kontrol	.930	18	.194
IL-6 Intervensi 12 hr	Intervensi	.873	18	.020
	Kontrol	.969	18	.776
NRS_2h	Intervensi	.816	18	.003
	Kontrol	.836	18	.005
NRS_6h	Intervensi	.789	18	.001
	Kontrol	.764	18	<.001
NRS_8h	Intervensi	.808	18	.002
	Kontrol	.869	18	.017
NRS_12h	Intervensi	.764	18	<.001
	Kontrol	.843	18	.007
NRS_24h	Intervensi	.780	18	<.001
	Kontrol	.816	18	.003

		Significance One-Sided p	Two-Sided p
Patient's Age	Equal variances assumed	.308	.615
	Equal variances not assumed	.308	.616

#### IL-6 Pre Intervensi across Group

#### Independent-Samples Mann-Whitney U Test Summary

Total N	36
Mann-Whitney U	183.500
Wilcoxon W	354.500
Test Statistic	183.500
Standard Error	31.265
Standardized Test Statistic	.688
Asymptotic Sig.(2-sided test)	.492
Exact Sig.(2-sided test)	.501



**IL-6 Interven 6 hr across Group  
Independent-Samples Mann-Whitney U Test Summary**

Total N	36
Mann-Whitney U	296.000
Wilcoxon W	467.000
Test Statistic	296.000
Standard Error	31.572
Standardized Test Statistic	4.244
Asymptotic Sig.(2-sided test)	<.001
Exact Sig.(2-sided test)	.000

**IL-6 Interven 12 hr across Group  
Independent-Samples Mann-Whitney U Test Summary**

<b>Total N</b>	<b>36</b>
<b>Mann-Whitney U</b>	<b>299.500</b>
<b>Wilcoxon W</b>	<b>470.500</b>
<b>Test Statistic</b>	<b>299.500</b>
<b>Standard Error</b>	<b>31.572</b>
<b>Standardized Test Statistic</b>	<b>4.355</b>
<b>Asymptotic Sig.(2-sided test)</b>	<b>&lt;.001</b>
<b>Exact Sig.(2-sided test)</b>	<b>.000</b>

**NRS\_2h across Group  
Independent-Samples Mann-Whitney U Test Summary**

Total N	36
Mann-Whitney U	269.000
Wilcoxon W	440.000
Test Statistic	269.000
Standard Error	30.368
Standardized Test Statistic	3.523
Asymptotic Sig.(2-sided test)	<.001
Exact Sig.(2-sided test)	.000

**Independent-Samples Mann-Whitney U Test Summary**

Total N	36
Mann-Whitney U	213.500
Wilcoxon W	384.500
Test Statistic	213.500
Standard Error	28.361
Standardized Test Statistic	1.816
Asymptotic Sig.(2-sided test)	.069
Exact Sig.(2-sided test)	.104



## Descriptives

	Group		Statistic	Std. Error	
Patient's Age	Intervensi	Mean	40.61	3.218	
		95% Confidence Interval for Mean	Lower Bound	33.82	
			Upper Bound	47.40	
		5% Trimmed Mean	40.23		
		Median	38.00		
		Variance	186.369		
		Std. Deviation	13.652		
		Minimum	23		
		Maximum	65		
		Range	42		
		Interquartile Range	25		
		Skewness	.429	.536	
		Kurtosis	-1.022	1.038	
		Kontrol	Mean	38.44	2.814
	95% Confidence Interval for Mean		Lower Bound	32.51	
			Upper Bound	44.38	
	5% Trimmed Mean		38.33		
	Median		39.00		
	Variance		142.497		
	Std. Deviation		11.937		
	Minimum		18		
	Maximum		61		
Range	43				
Interquartile Range	18				
Skewness	.228		.536		
Kurtosis	-.513		1.038		
ASA	Intervensi		Mean	1.44	.121
		95% Confidence Interval for Mean	Lower Bound	1.19	
			Upper Bound	1.70	
		5% Trimmed Mean	1.44		
		Median	1.00		
		Variance	.261		
		Std. Deviation	.511		
		Minimum	1		
		Maximum	2		
		Range	1		
		Interquartile Range	1		
		Skewness	.244	.536	
		Kurtosis	-2.199	1.038	
		Kontrol	Mean	1.39	.118
	95% Confidence Interval for Mean		Lower Bound	1.14	
			Upper Bound	1.64	



		5% Trimmed Mean		1.38	
		Median		1.00	
		Variance		.252	
		Std. Deviation		.502	
		Minimum		1	
		Maximum		2	
		Range		1	
		Interquartile Range		1	
		Skewness		.498	.536
		Kurtosis		-1.987	1.038
IL-6 Pre Intervensi	Intervensi	Mean		1.8683	.26236
		95% Confidence Interval for Mean	Lower Bound	1.3148	
			Upper Bound	2.4219	
		5% Trimmed Mean		1.7670	
		Median		1.4150	
		Variance		1.239	
		Std. Deviation		1.11311	
		Minimum		.90	
		Maximum		4.66	
		Range		3.76	
		Interquartile Range		1.14	
		Skewness		1.561	.536
		Kurtosis		1.729	1.038
	Kontrol	Mean		2.4772	.38214
		95% Confidence Interval for Mean	Lower Bound	1.6710	
			Upper Bound	3.2835	
		5% Trimmed Mean		2.3808	
		Median		1.9000	
		Variance		2.629	
		Std. Deviation		1.62127	
		Minimum		.90	
		Maximum		5.79	
		Range		4.89	
		Interquartile Range		3.23	
		Skewness		.592	.536
		Kurtosis		-1.013	1.038
IL-6 Intervensi 6 hr	Intervensi	Mean		2.9294	.49929
		95% Confidence Interval for Mean	Lower Bound	1.8760	
			Upper Bound	3.9829	
		5% Trimmed Mean		2.7549	
		Median		2.1000	
		Variance		4.487	
		Std. Deviation		2.11830	



	Minimum		.90	
	Maximum		8.10	
	Range		7.20	
	Interquartile Range		2.50	
	Skewness		1.288	.536
	Kurtosis		1.003	1.038
Kontrol	Mean		6.8428	.37748
	95% Confidence Interval for Mean	Lower Bound	6.0464	
		Upper Bound	7.6392	
	5% Trimmed Mean		6.9270	
	Median		7.2000	
	Variance		2.565	
	Std. Deviation		1.60150	
	Minimum		3.27	
	Maximum		8.90	
	Range		5.63	
	Interquartile Range		2.85	
	Skewness		-.706	.536
	Kurtosis		-.292	1.038
IL-6 Intervensi	Mean		1.7667	.28536
hr	95% Confidence Interval for Mean	Lower Bound	1.1646	
		Upper Bound	2.3687	
	5% Trimmed Mean		1.6963	
	Median		1.5500	
	Variance		1.466	
	Std. Deviation		1.21068	
	Minimum		.50	
	Maximum		4.30	
	Range		3.80	
	Interquartile Range		1.77	
	Skewness		.873	.536
	Kurtosis		-.389	1.038
Kontrol	Mean		4.4900	.33084
	95% Confidence Interval for Mean	Lower Bound	3.7920	
		Upper Bound	5.1880	
	5% Trimmed Mean		4.4861	
	Median		4.3000	
	Variance		1.970	
	Std. Deviation		1.40364	
	Minimum		1.45	
	Maximum		7.60	
	Range		6.15	
	Interquartile Range		1.73	



		Skewness	.140	.536
		Kurtosis	.902	1.038
NRS_2h	Intervensi	Mean	4.94	.171
		95% Confidence Interval for Mean	Lower Bound Upper Bound	4.58 5.31
		5% Trimmed Mean	4.94	
		Median	5.00	
		Variance	.526	
		Std. Deviation	.725	
		Minimum	4	
		Maximum	6	
		Range	2	
		Interquartile Range	1	
		Skewness	.086	.536
		Kurtosis	-.904	1.038
	Kontrol	Mean	6.11	.212
		95% Confidence Interval for Mean	Lower Bound Upper Bound	5.66 6.56
		5% Trimmed Mean	6.18	
		Median	6.00	
		Variance	.810	
		Std. Deviation	.900	
		Minimum	4	
		Maximum	7	
		Range	3	
		Interquartile Range	1	
		Skewness	-.782	.536
		Kurtosis	.064	1.038
NRS_6h	Intervensi	Mean	4.06	.151
		95% Confidence Interval for Mean	Lower Bound Upper Bound	3.74 4.37
		5% Trimmed Mean	4.06	
		Median	4.00	
		Variance	.408	
		Std. Deviation	.639	
		Minimum	3	
		Maximum	5	
		Range	2	
		Interquartile Range	0	
		Skewness	-.041	.536
		Kurtosis	-.143	1.038
	Kontrol	Mean	4.39	.164



		95% Confidence Interval for Mean	Lower Bound	4.04	
			Upper Bound	4.74	
		5% Trimmed Mean		4.43	
		Median		4.50	
		Variance		.487	
		Std. Deviation		.698	
		Minimum		3	
		Maximum		5	
		Range		2	
		Interquartile Range		1	
		Skewness		-.724	.536
		Kurtosis		-.481	1.038
NRS_8h	Intervensi	Mean		3.00	.162
		95% Confidence Interval for Mean	Lower Bound	2.66	
			Upper Bound	3.34	
		5% Trimmed Mean		3.00	
		Median		3.00	
		Variance		.471	
		Std. Deviation		.686	
		Minimum		2	
		Maximum		4	
		Range		2	
		Interquartile Range		1	
		Skewness		.000	.536
		Kurtosis		-.584	1.038
	Kontrol	Mean		3.78	.263
		95% Confidence Interval for Mean	Lower Bound	3.22	
			Upper Bound	4.33	
		5% Trimmed Mean		3.86	
		Median		4.00	
		Variance		1.242	
		Std. Deviation		1.114	
		Minimum		1	
		Maximum		5	
		Range		4	
		Interquartile Range		2	
		Skewness		-.943	.536
		Kurtosis		.854	1.038
	Intervensi	Mean		2.61	.164
		95% Confidence Interval for Mean	Lower Bound	2.26	
			Upper Bound	2.96	



		5% Trimmed Mean	2.57	
		Median	2.50	
		Variance	.487	
		Std. Deviation	.698	
		Minimum	2	
		Maximum	4	
		Range	2	
		Interquartile Range	1	
		Skewness	.724	.536
		Kurtosis	-.481	1.038
	Kontrol	Mean	3.50	.167
		95% Confidence Interval for Mean	Lower Bound	3.15
			Upper Bound	3.85
		5% Trimmed Mean	3.50	
		Median	3.50	
		Variance	.500	
		Std. Deviation	.707	
		Minimum	2	
		Maximum	5	
		Range	3	
		Interquartile Range	1	
		Skewness	.000	.536
		Kurtosis	.118	1.038
NRS_24h	Intervensi	Mean	1.67	.162
		95% Confidence Interval for Mean	Lower Bound	1.33
			Upper Bound	2.01
		5% Trimmed Mean	1.63	
		Median	2.00	
		Variance	.471	
		Std. Deviation	.686	
		Minimum	1	
		Maximum	3	
		Range	2	
		Interquartile Range	1	
		Skewness	.547	.536
		Kurtosis	-.584	1.038
	Kontrol	Mean	3.06	.171
		95% Confidence Interval for Mean	Lower Bound	2.69
			Upper Bound	3.42
		5% Trimmed Mean	3.06	
		Median	3.00	
		Variance	.526	
		Std. Deviation	.725	



Minimum	2	
Maximum	4	
Range	2	
Interquartile Range	1	
Skewness	-.086	.536
Kurtosis	-.904	1.038

### NRS\_8h across Group

#### Independent-Samples Mann-Whitney U Test Summary

Total N	36
Mann-Whitney U	240.000
Wilcoxon W	411.000
Test Statistic	240.000
Standard Error	30.118
Standardized Test Statistic	2.590
Asymptotic Sig.(2-sided test)	.010
Exact Sig.(2-sided test)	.013

### NRS\_12h across Group

#### Independent-Samples Mann-Whitney U Test Summary

Total N	36
Mann-Whitney U	258.500
Wilcoxon W	429.500
Test Statistic	258.500
Standard Error	29.742
Standardized Test Statistic	3.245
Asymptotic Sig.(2-sided test)	.001
Exact Sig.(2-sided test)	.002

### NRS\_24h across Group

#### Independent-Samples Mann-Whitney U Test Summary

Total N	36
Mann-Whitney U	291.000
Wilcoxon W	462.000
Test Statistic	291.000
Standard Error	30.341
Standardized Test Statistic	4.252
Asymptotic Sig.(2-sided test)	<.001
Exact Sig.(2-sided test)	.000

