

DAFTAR PUSTAKA

- Abdin, A., Burri, H., Imnadze, G., Turkmani, K., Al Ghorani, H., Almasri, A., Werner, C., Kulenthiran, S., 2025. Outcomes of stylet-driven leads compared to lumenless leads for left bundle branch area pacing: systematic review and meta-analysis. *Clinical Research in Cardiology* 1–13.
- Abou, R., van der Bijl, P., Bax, J.J., Delgado, V., 2020. Global longitudinal strain: clinical use and prognostic implications in contemporary practice. *Heart* 106, 1438–1444.
- Arnold, A., Shun-Shin, M., Keene, D., Sohaib, A., Finegold, J., Lefroy, D., Davies, W., Lim, P.B., Kanagaratnam, P., Koa-Wing, M., 2016. 9-05: both selective and non-selective His pacing preserve left ventricle activation. *EP Europace* 18, i24.
- Balogopalan, J.P., Abdullakutty, J., 2024. Heart failure registries in asia—what have we learned? *Cardiovasc. Innov. Appl.* 9, 953.
- Bender, A.B., Aijola, O.A., 2019. Stylet-directed His bundle lead placement: Early days of an emerging contender. *Heart Rhythm* 16, 1832–1833.
- Brady, B., King, G., Murphy, R.T., Walsh, D., 2023. Myocardial strain: A clinical review. *Irish Journal of Medical Science (1971-)* 192, 1649–1656.
- Burri, H., Jastrzebski, M., Cano, Ó., Ćurila, K., de Pooter, J., Huang, W., Israel, C., Joza, J., Romero, J., Vernooy, K., 2023. EHRA clinical consensus statement on conduction system pacing implantation: endorsed by the Asia Pacific Heart Rhythm Society (APHRS), Canadian Heart Rhythm Society (CHRS), and LATIN AMERICAN HEART RHYTHM SOCIETY (LAHRS). *Europace* 25, 1208–1236.
- Catrina, B.I., Batar, F., Manitiu, I., Prodan, L., Tanasescu, C., Filip, T., 2024. Concepts of cardiac dyssynchrony and dynamic approach. *Diagnostics* 14, 937.
- Cerantola, M., Frankel, D.S., Callans, D.J., Santangeli, P., Schaller, R.D., 2023. Left bundle branch area pacing for the treatment of painful left bundle branch block syndrome. *HeartRhythm Case Rep.* 9, 121–125.
- Chen, H.-C., Liu, W.-H., Chen, Y.-L., Lee, W.-C., Fang, Y.-N., Chong, S.-Z., Chen, M.-C., 2023. Left bundle branch pacing preserved left ventricular myocardial work in patients with bradycardia. *Front. Cardiovasc. Med.* 10, 1201841.
- Chen, X., Dong, J., 2024. Stylet-driven leads compared with lumenless leads for left bundle branch area pacing: a systematic review and meta-analysis. *BMC Cardiovasc. Disord.* 24, 598.
- Cheng, A., Helm, R.H., Abraham, T.P., 2009. Pathophysiological mechanisms underlying ventricular dyssynchrony. *Europace* 11, v10–v14.
- De Pooter, J., Calle, S., Timmermans, F., Van Heuverswyn, F., 2021. Left bundle branch area pacing using stylet-driven pacing leads with a new delivery sheath: a comparison with lumen-less leads. *J. Cardiovasc. Electrophysiol.* 32, 439–448.
- De Pooter, J., Ozpak, E., Calle, S., Peytchev, P., Heggermont, W., Marchandise, S., Provenier, F., Francois, B., Anné, W., Pollet, P., 2022a. Initial experience of left bundle branch area pacing using stylet-driven pacing leads: a multicenter study. *J. Cardiovasc. Electrophysiol.* 33, 1540–1549.
- De Pooter, J., Wauters, A., Van Heuverswyn, F., Le polain de Waroux, J.-B., 2022b. A Guide to Left Bundle Branch Area Pacing Using Stylet-Driven Pacing Leads. *Front. Cardiovasc. Med.* 241.
- Fritz, D., Ose, B., Zerr, H., Clark, M., Trupp, C., Gupta, A., Shahab, A., Sheldon, S.H., Noheria, A., 2025. Impact of a practice-wide switch from traditional right ventricular pacing to left bundle branch area pacing. *J. Innov. Card. Rhythm Manag.* 16, 6297.
- Fu, Y., Liu, P., Jin, L., Li, Y., Zhang, Y., Qin, X., Zheng, Q., 2022. Left bundle branch area pacing: a promising modality for cardiac resynchronization therapy. *Front. Cardiovasc. Med.* 9, 901046.
- Gurgu, A., Cozma, D., Chelu, M.G., 2020. Left bundle branch pacing: the new kid on the block. *Romanian Journal of Cardiology* Vol 30.
- Höke, U., Thijssen, J., Van Bommel, R.J., Van Erven, L., Van Der Velde, E.T., Holman, E.R., Schalij, M.J., Bax, J.J., Delgado, V., Marsan, N.A., 2013. Influence of diabetes on left ventricular systolic and diastolic function and on long-term outcome after cardiac resynchronization therapy. *Diabetes Care* 36, 985–991.
- Jastrzebski, M., Kielbasa, G., Cano, O., Ćurila, K., Heckman, L., De Pooter, J., Chovanec, M., Rademakers, L., Huybrechts, W., Grieco, D., 2022. Left bundle branch area pacing outcomes: the multicentre European MELOS study. *Eur. Heart J.* 43, 4161–4173.
- Karwiky, G., Kamarullah, W., Pranata, R., Iqbal, M., Achmad, C., Martha, J.W., Setiawan, I., 2024. Stylet-driven leads versus lumenless pacing leads in patients with left bundle branch area pacing: A systematic review and meta-analysis. *Heart Rhythm O2*.
- Li, Y., Chen, K., Dai, Y., Li, C., Sun, Q., Chen, R., Gold, M.R., Zhang, S., 2019. Left bundle branch pacing for symptomatic bradycardia: implant success rate, safety, and pacing characteristics. *Heart Rhythm* 16, 1758–1765.
- Liu, P., Wang, Q., Sun, H., Qin, X., Zheng, Q., 2021. Left bundle branch pacing: Current knowledge and future prospects. *Front. Cardiovasc. Med.* 8.

- Mafi-Rad, M., Luermans, J.G.L.M., Blaauw, Y., Janssen, M., Crijns, H.J., Prinzen, F.W., Vernooy, K., 2016. Feasibility and acute hemodynamic effect of left ventricular septal pacing by transvenous approach through the interventricular septum. *Circ. Arrhythm. Electrophysiol.* 9, e003344.
- Marinaccio, L., Giacomelli, D., Romanato, G., Borgato, M., Resta, M., Marchese, D., 2019. Is dedicated implantation tool set really needed for permanent His bundle pacing? *Cardiovasc. Diagn. Ther.* 9, 78.
- Miyajima, K., Urushida, T., Tomida, Y., Tamura, T., Masuda, S., Okazaki, A., Kawaguchi, Y., Wakabayashi, Y., Maekawa, Y., 2023. Comparison of the left ventricular dyssynchrony between stylet-driven and lumenless lead technique in left bundle branch area pacing using myocardial perfusion scintigraphy. *Quant. Imaging Med. Surg.* 13, 6840.
- Parlato, D.A., Barletta, D. V., Tamborrino, D.P.P., Parollo, D.M., Mazzocchi, D.L., Sbragi, D.S., Canu, D.A., Di Cori, D.A., De Lucia, D.R., Segreti, D.L., 2023. Leadless pacing in the elderly: exit strategy or valid alternative? *Europace* 25, euad122-401.
- Pestrea, C., Gherghina, A., Ortan, F., Cismaru, G., Radu, R., 2020. Left bundle branch area pacing-restoring the natural order: a case report. *Medicine* 99, e21602.
- Pua, C.J., Loo, G., Kui, M., Moy, W.L., Hii, A.-A., Lee, V., Chin, C.-T., Bryant, J.A., Toh, D.-F., Lee, C.-H., 2023. Impact of diabetes on myocardial fibrosis in patients with hypertension: the REMODEL study. *Circ. Cardiovasc. Imaging* 16, 545–553.
- Rademakers, L.M., Van Den Broek, J., Op't Hof, M., Bracke, F.A., 2022. Initial experience, feasibility and safety of permanent left bundle branch pacing: results from a prospective single-centre study. *Netherlands Heart Journal* 1–7.
- Rijks, J., Luermans, J., Heckman, L., van Stipdonk, A.M.W., Prinzen, F., Lumens, J., Vernooy, K., 2022. Physiology of left ventricular septal pacing and left bundle branch pacing. *Card. Electrophysiol. Clin.* 14, 181–189.
- Shroff, J.P., Raja, D.C., Abhilash, S.P., Mehta, A., Abhayaratna, W.P., Vijayaraman, P., Sanders, P., Pathak, R.K., 2025. Left bundle branch area pacing vs right ventricular pacing in preserved or mildly reduced ejection fraction: the PACE-HF trial. *Eur. Heart J.* ehaf724.
- Vetta, F., Marinaccio, L., Vetta, G., 2020. Alternative sites of ventricular pacing: His bundle pacing. *Monaldi Archives for Chest Disease* 90.
- von Bibra, H., St John Sutton, M., 2011. Impact of diabetes on postinfarction heart failure and left ventricular remodeling. *Curr. Heart Fail. Rep.* 8, 242–251.
- Whinnett, Z., Naraen, A., Vijayaraman, P., Cleland, J.G.F., Keene, D., 2025. Physiological pacing: mechanisms, clinical indications, and perspectives. *Eur. Heart J.* 46, 3407–3419.
- Yao, L., Qi, Y., Xiao, S., Liu, R., Wo, J., 2022. Effect of left bundle branch pacing on left ventricular systolic function and synchronization in patients with third-degree atrioventricular block, assessment by 3-dimensional speckle tracking echocardiography. *J. Electrocardiol.* 72, 61–65.
- Yu, G.-I., Kim, T.-H., Yu, H.T., Joung, B., Pak, H.-N., Lee, M.-H., 2023. Left bundle branch area pacing with stylet-driven pacing leads: implantation technique. *International Journal of Arrhythmia* 24, 12.



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REKOMENDASI PERSETUJUAN ETIK

Nomor : 886/UN4.6.4.5.31/ PP36/ 2025

Tanggal: 4 Nopember 2025

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

No Protokol	UH25100926	No Sponsor	
Peneliti Utama	dr. Andi Tiara S. Adam, S.Ked	Sponsor	
Judul Peneliti	Efek Jangka Panjang Pemacuan Cabang Berkas Kiri Menggunakan Kabel Pacu Kawat Pandu terhadap Fungsi Sistolik Ventrikel Kiri		
No Versi Protokol	1	Tanggal Versi	28 Oktober 2025
No Versi PSP		Tanggal Versi	
Tempat Penelitian	RSUP Wahidin Sudirohusodo Makassar		
Jenis Review	☐ Exempted ☒ Expedited ☐ Fullboard Tanggal	Masa Berlaku 4 Nopember 2025 sampai 4 Nopember 2026	Frekuensi review lanjutan
Ketua KEP Universitas Hasanuddin	Prof. dr. Muh Nasrum Massi, PhD, SpMK, Subsp. Bakt(K)	Tanda tangan 	
Sekretaris KEP Universitas Hasanuddin	Prof.dr. Firdaus Hamid, PhD, SpMK(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 protokol yang disetujui (protocol deviation / violation)
- Mematuhi semua peraturan yang ditentukan

DAFTAR RIWAYAT HIDUP
Curriculum Vitae



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Nama Orang Tua / *Parent's Name* :

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Nama Ibu / *Mother Name* : Dr. Ir. Andi Hasizah Mochtar, M.Si

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Pekerjaan Ayah / *Father Job* : Dosen

Pekerjaan Ibu / *Mother Job* : Dosen

Riwayat Pendidikan

Educational and Professional Qualification

Jenjang Pendidikan

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2007 - 2010	SMP Islam Athirah Bukit Baruga, Makassar
2010 - 2013	SMA Negeri 17 Makassar
2013 - 2017	Program Studi Pendidikan Dokter Fakultas Kedokteran Universitas Hasanuddin
2017 - 2019	Program Studi Profesi Dokter Fakultas Kedokteran Universitas Hasanuddin
2022 - 2026	PPDS-1 Ilmu Penyakit Jantung dan Pembuluh Darah Fakultas Kedokteran Universitas Hasanuddin

Demikian riwayat hidup ini saya buat dengan sebenar-benarnya.

Makassar, 20 Februari 2026



dr. Andi Tiara S. Adam