

## DAFTAR PUSTAKA

- Alkhouli, M., Alqahtani, F., Aljohani, S., Alvi, M., Holmes, D.R., 2018. Burden of Atrial Fibrillation–Associated Ischemic Stroke in the United States. *JACC Clin. Electrophysiol.* 4: 618–625. doi:10.1016/j.jacep.2018.02.021
- Arsava, E.M., Kim, G.M., Oliveira-Filho, J., Gungor, L., Noh, H.J., De Jesus Lordelo, M., Avery, R., Maier, I.L., Ay, H., 2016. Prediction of early recurrence after acute ischemic stroke. *JAMA Neurol.* 73: 396–401. doi:10.1001/jamaneurol.2015.4949
- Ayirala, S., Kumar, S., O’Sullivan, D.M., Silverman, D.I., 2011. Echocardiographic predictors of left atrial appendage thrombus formation. *J. Am. Soc. Echocardiogr.* 24: 499–505. doi:10.1016/j.echo.2011.02.010
- Badano, L.P., Kolias, T.J., Muraru, D., Abraham, T.P., Aurigemma, G., Edvardsen, T., D’Hooge, J., Donal, E., Fraser, A.G., Marwick, T., Mertens, L., Popescu, B.A., Sengupta, P.P., Lancellotti, P., Thomas, J.D., Voigt, J.U., 2018. Standardization of left atrial, right ventricular, and right atrial deformation imaging using two-dimensional speckle tracking echocardiography: A consensus document of the EACVI/ASE/Industry Task Force to standardize deformation imaging. *Eur. Heart J. Cardiovasc. Imaging* 19: 591–600. doi:10.1093/ehjci/jej042
- Bernhardt, J., Hayward, K.S., Kwakkel, G., Ward, N.S., Wolf, S.L., Borschmann, K., Krakauer, J.W., Boyd, L.A., Carmichael, S.T., Corbett, D., Cramer, S.C., 2017. Agreed definitions and a shared vision for new standards in stroke recovery research: The Stroke Recovery and Rehabilitation Roundtable taskforce. *Int. J. Stroke* 12: 444–450. doi:10.1177/1747493017711816
- Blume, G.G., McLeod, C.J., Barnes, M.E., Seward, J.B., Pellikka, P.A., Bastiansen, P.M., Tsang, T.S.M., 2011. Left atrial function: Physiology, assessment, and clinical implications. *Eur. J. Echocardiogr.* 12: 421–430. doi:10.1093/ejechocard/jeq175
- Cacioppo, F., Reisenbauer, D., Herkner, H., Oppenauer, J., Schuetz, N., Niederdoeckl, J., Schnaubelt, S., Gupta, S., Lutnik, M., Simon, A., Spiel, A.O., Buchtele, N., Domanovits, H., Laggner, A.N., Schwameis, M., 2022. Association of Intravenous Potassium and Magnesium Administration with Spontaneous Conversion of Atrial Fibrillation and Atrial Flutter in the Emergency Department. *JAMA Netw. Open* 5: E2237234. doi:10.1001/jamanetworkopen.2022.37234
- Cameli, M., Lisi, M., Righini, F.M., Massoni, A., Natali, B.M., Focardi, M., Tacchini, D., Geyer, A., Curci, V., Di Tommaso, C., Lisi, G., MacCherini, M., Chiavarelli, M., Massetti, M., Tanganelli, P., Mondillo, S., 2013. Usefulness of atrial deformation analysis to predict left atrial fibrosis and endocardial thickness in patients undergoing mitral valve operations for severe mitral regurgitation secondary to mitral valve prolapse. *Am. J. Cardiol.* 111: 595–601. doi:10.1016/j.amjcard.2012.10.049
- Campbell, B.C.V., De Silva, D.A., Macleod, M.R., Coutts, S.B., Schwamm, L.H., Davis, S.M., Donnan, G.A., 2019. Ischaemic stroke. *Nat. Rev. Dis. Prim.* 5. doi:10.1038/s41572-019-0118-8

- Campbell, B.C.V., Khatri, P., 2020. Stroke. *Lancet* 396: 129–142. doi:10.1016/S0140-6736(20)31179-X
- Cosentino, F., Grant, P.J., Aboyans, V., Bailey, C.J., Ceriello, A., Delgado, V., Federici, M., Filippatos, G., Grobbee, D.E., Hansen, T.B., Huikuri, H. V., Johansson, I., Juni, P., Lettino, M., Marx, N., Mellbin, L.G., Ostgren, C.J., Rocca, B., Roffi, M., Sattar, N., Seferovic, P.M., Sousa-Uva, M., Valensi, P., Wheeler, D.C., Piepoli, M.F., Birkeland, K.I., Adamopoulos, S., Ajjan, R., Avogaro, A., Baigent, C., Brodmann, M., Bueno, H., Ceconi, C., Chioncel, O., Coats, A., Collet, J.P., Collins, P., Cosyns, B., Di Mario, C., Fisher, M., Fitzsimons, D., Halvorsen, S., Hansen, D., Hoes, A., Holt, R.I.G., Home, P., Katus, H.A., Khunti, K., Komajda, M., Lambrinou, E., Landmesser, U., Lewis, B.S., Linde, C., Lorusso, R., Mach, F., Mueller, C., Neumann, F.J., Persson, F., Petersen, S.E., Petronio, A.S., Richter, D.J., Rosano, G.M.C., Rossing, P., Rydén, L., Shlyakhto, E., Simpson, I.A., Touyz, R.M., Wijns, W., Wilhelm, M., Williams, B., Windecker, S., Dean, V., Gale, C.P., Hindricks, G., Jung, B., Leclercq, C., Merkely, B., Zelveian, P.H., Scherr, D., Jahangirov, T., Lazareva, I., Shivalkar, B., Naser, N., Gruev, I., Milicic, D., Petrou, P.M., Linhart, A., Hildebrandt, P., Hasan-Ali, H., Marandi, T., Lehto, S., Mansourati, J., Kurashvili, R., Siasos, G., Lengyel, C., Thrainsdottir, I.S., Aronson, D., Di Lenarda, A., Raissova, A., Ibrahimi, P., Abilova, S., Trusinskis, K., Saade, G., Benlamin, H., Petrulioniene, Z., Banu, C., Magri, C.J., David, L., Boskovic, A., Alami, M., Liem, A.H., Bosevski, M., Svingen, G.F.T., Janion, M., Gavina, C., Vinereanu, D., Nedogoda, S., Mancini, T., Ilic, M.D., Fabryova, L., Fras, Z., Jiménez-Navarro, M.F., Norhammar, A., Lehmann, R., Mourali, M.S., Ural, D., Nesukay, E., Chowdhury, T.A., 2020. 2019 ESC Guidelines on diabetes, pre-diabetes, and cardiovascular diseases developed in collaboration with the EASD. *Eur. Heart J.* 41: 255–323. doi:10.1093/eurheartj/ehz486
- Donal, E., Lip, G.Y.H., Galderisi, M., Goette, A., Shah, D., Marwan, M., Lederlin, M., Mondillo, S., Edvardsen, T., Sitges, M., Grapsa, J., Garbi, M., Senior, R., Gimelli, A., Potpara, T.S., Van Gelder, I.C., Gorenek, B., Mabo, P., Lancellotti, P., Kuck, K.H., Popescu, B.A., Hindricks, G., Habib, G., 2016. EACVI/EHRA Expert Consensus Document on the role of multi-modality imaging for the evaluation of patients with atrial fibrillation. *Eur. Heart J. Cardiovasc. Imaging* 17: 355–383. doi:10.1093/ehjci/jev354
- Farsalinos, K.E., Daraban, A.M., Ünlü, S., Thomas, J.D., Badano, L.P., Voigt, J.U., 2015. Head-to-Head Comparison of Global Longitudinal Strain Measurements among Nine Different Vendors: The EACVI/ASE Inter-Vendor Comparison Study. *J. Am. Soc. Echocardiogr.* 28: 1171–1181.e2. doi:10.1016/j.echo.2015.06.011
- Feigin, V.L., Norrving, B., Mensah, G.A., 2017. Global Burden of Stroke. *Circ. Res.* 120: 439–448. doi:10.1161/CIRCRESAHA.116.308413
- Flach, C., Muruet, W., Wolfe, C.D.A., Bhalla, A., Douiri, A., 2020. Risk and Secondary Prevention of Stroke Recurrence: A Population-Base Cohort Study. *Stroke* 51: 2435–2444. doi:10.1161/STROKEAHA.120.028992
- Freedman, B., 2017. Screening for atrial fibrillation. *Circulation* 135: 1851–1867.

doi:10.1161/CIRCULATIONAHA.116.026693

- Gallacher, K.I., Batty, G.D., McLean, G., Mercer, S.W., Guthrie, B., May, C.R., Langhorne, P., Mair, F.S., 2014. Stroke, multimorbidity and polypharmacy in a nationally representative sample of 1,424,378 patients in Scotland: Implications for treatment burden. *BMC Med.* 12: 1–9. doi:10.1186/s12916-014-0151-0
- Gallacher, K.I., Jani, B.D., Hanlon, P., Nicholl, B.I., Mair, F.S., 2019. Multimorbidity in Stroke. *Stroke* 50: 1919–1926. doi:10.1161/STROKEAHA.118.020376
- Gan, G.C.H., Ferkh, A., Boyd, A., Thomas, L., 2018. Left atrial function: Evaluation by strain analysis. *Cardiovasc. Diagn. Ther.* 8: 29–46. doi:10.21037/cdt.2017.06.08
- Gladstone, D.J., Spring, M., Dorian, P., Panzov, V., Thorpe, K.E., Hall, J., Vaid, H., O'Donnell, M., Laupacis, A., Côté, R., Sharma, M., Blakely, J.A., Shuaib, A., Hachinski, V., Coutts, S.B., Sahlas, D.J., Teal, P., Yip, S., Spence, J.D., Buck, B., Verreault, S., Casaubon, L.K., Penn, A., Selchen, D., Jin, A., Howse, D., Mehdiratta, M., Boyle, K., Aviv, R., Kapral, M.K., Mamdani, M., 2014. Atrial Fibrillation in Patients with Cryptogenic Stroke. *N. Engl. J. Med.* 370: 2467–2477. doi:10.1056/nejmoa1311376
- Grond, M., Jauss, M., Hamann, G., Stark, E., Veltkamp, R., Nabavi, D., Horn, M., Weimar, C., Köhrmann, M., Wachter, R., Rosin, L., Kirchhof, P., 2013. Improved detection of silent atrial fibrillation using 72-hour holter ecg in patients with ischemic stroke: A prospective multicenter cohort study. *Stroke* 44: 3357–3364. doi:10.1161/STROKEAHA.113.001884
- Hauser, R., Nielsen, A.B., Skaarup, K.G., Lassen, M.C.H., Duus, L.S., Johansen, N.D., Sengeløv, M., Marott, J.L., Jensen, G., Schnohr, P., Søgaard, P., Møgelvang, R., Biering-Sørensen, T., 2021. Left atrial strain predicts incident atrial fibrillation in the general population: the Copenhagen City Heart Study. *Eur. Hear. J. - Cardiovasc. Imaging* 23: 52–60. doi:10.1093/ehjci/jeab202
- Heijman, J., Voigt, N., Nattel, S., Dobrev, D., 2014. Cellular and molecular electrophysiology of atrial fibrillation initiation, maintenance, and progression. *Circ. Res.* 114: 1483–1499. doi:10.1161/CIRCRESAHA.114.302226
- Hindricks, G., Potpara, T., Dagres, N., Bax, J.J., Boriani, G., Dan, G.A., Fauchier, L., Kalman, J.M., Lane, D.A., Lettino, M., Pinto, F.J., Thomas, G.N., Valgimigli, M., Van Putte, B.P., Kirchhof, P., Kühne, M., Aboyans, V., Ahlsson, A., Balsam, P., Bauersachs, J., Benussi, S., Brandes, A., Braunschweig, F., Camm, A.J., Capodanno, D., Casadei, B., Conen, D., Crijns, H.J.G.M., Delgado, V., Dobrev, D., Drexel, H., Eckardt, L., Fitzsimons, D., Folliguet, T., Gale, C.P., Gorenek, B., Haeusler, K.G., Heidbuchel, H., Iung, B., Katus, H.A., Kotecha, D., Landmesser, U., Leclercq, C., Lewis, B.S., Mascherbauer, J., Merino, J.L., Merkely, B., Mont, L., Mueller, C., Nagy, K. V., Oldgren, J., Pavlović, N., Pedretti, R.F.E., Petersen, S.E., Piccini, J.P., Popescu, B.A., Pürerfellner, H., Richter, D.J., Roffi, M., Rubboli, A., Scherr, D., Schnabel, R.B., Simpson, I.A., Shlyakhto, E., Sinner, M.F., Steffel, J., Sousa-Uva, M., Suwalski, P., Svetlosak, M., Touyz, R.M., Arbelo, E.,



- Blomström-Lundqvist, C., Castella, M., Dilaveris, P.E., Filippatos, G., La Meir, M., Lebeau, J.P., Lip, G.Y.H., Neil Thomas, G., Van Gelder, I.C., Watkins, C.L., 2021. 2020 ESC Guidelines for the diagnosis and management of atrial fibrillation developed in collaboration with the European Association for Cardio-Thoracic Surgery (EACTS). *Eur. Heart J.* 42: 373–498. doi:10.1093/eurheartj/ehaa612
- Hoit, B.D., 2014. Left atrial size and function: Role in prognosis. *J. Am. Coll. Cardiol.* 63: 493–505. doi:10.1016/j.jacc.2013.10.055
- Hong, K.S., Yegiaian, S., Lee, M., Lee, J., Saver, J.L., 2011. Declining stroke and vascular event recurrence rates in secondary prevention trials over the past 50 years and consequences for current trial design. *Circulation* 123: 2111–2119. doi:10.1161/CIRCULATIONAHA.109.934786
- Iwasaki, Y.K., Nishida, K., Kato, T., Nattel, S., 2011. Atrial fibrillation pathophysiology: Implications for management. *Circulation* 124: 2264–2274. doi:10.1161/CIRCULATIONAHA.111.019893
- Johnson, C.O., Nguyen, M., Roth, G.A., Nichols, E., Alam, T., Abate, D., Abd-Allah, F., Abdelalim, A., Abraha, H.N., Abu-Rmeileh, N.M., Adebayo, O.M., Adeoye, A.M., Agarwal, G., Agrawal, S., Aichour, A.N., Aichour, I., Aichour, M.T.E., Alahdab, F., Ali, R., Alvis-Guzman, N., Anber, N.H., Anjomshoa, M., Arabloo, J., Arauz, A., Ärnlov, J., Arora, A., Awasthi, A., Banach, M., Barboza, M.A., Barker-Collo, S.L., Bärnighausen, T.W., Basu, S., Belachew, A.B., Belayneh, Y.M., Bennett, D.A., Bensenor, I.M., Bhattacharyya, K., Biadgo, B., Bijani, A., Bikbov, B., Bin Sayeed, M.S., Butt, Z.A., Cahuana-Hurtado, L., Carrero, J.J., Carvalho, F., Castañeda-Orjuela, C.A., Castro, F., Catalá-López, F., Chaiah, Y., Chiang, P.P.C., Choi, J.Y.J., Christensen, H., Chu, D.T., Cortinovis, M., Damasceno, A.A.M., Dandona, L., Dandona, R., Daryani, A., Davletov, K., De Courten, B., De la Cruz-Góngora, V., Degefa, M.G., Dharmaratne, S.D., Diaz, D., Dubey, M., Duken, E.E., Edessa, D., Endres, M., Faraon, E.J.A., Farzadfar, F., Fernandes, E., Fischer, F., Flor, L.S., Ganji, M., Gebre, A.K., Gebremichael, T.G., Geta, B., Gezae, K.E., Gill, P.S., Gnedovskaya, E. V., Gómez-Dantés, H., Goulart, A.C., Grosso, G., Guo, Y., Gupta, R., Haj-Mirzaian, Arvin, Haj-Mirzaian, Arya, Hamidi, S., Hankey, G.J., Hassen, H.Y., Hay, S.I., Hegazy, M.I., Heidari, B., Herrial, N.A., Hosseini, M.A., Hostiuc, S., Irvani, S.S.N., Islam, S.M.S., Jahanmehr, N., Javanbakht, M., Jha, R.P., Jonas, J.B., Józwiak, J.J., Jürisson, M., Kahsay, A., Kalani, R., Kalkonde, Y., Kamil, T.A., Kanchan, T., Karch, A., Karimi, N., Karimi-Sari, H., Kasaeian, A., Kassa, T.D., Kazemeini, H., Kefale, A.T., Khader, Y.S., Khalil, I.A., Khan, E.A., Khang, Y.H., Khubchandani, J., Kim, D., Kim, Y.J., Kisa, A., Kivimäki, M., Koyanagi, A., Krishnamurthi, R.K., Anil Kumar, G., Lafranconi, A., Lewington, S., Li, S., Lo, W.D., Lopez, A.D., Lorkowski, S., Lotufo, P.A., Mackay, M.T., Majdan, M., Majdzadeh, R., Majeed, A., Malekzadeh, R., Manafi, N., Mansournia, M.A., Mehndiratta, M.M., Mehta, V., Mengistu, G., Meretoja, A., Meretoja, T.J., Miazgowski, B., Miazgowski, T., Miller, T.R., Mirakshimov, E.M., Mohajer, B., Mohammad, Y., Mohammadoo-Khorasani, M., Mohammed, S., Mohebi, F., Mokdad, A.H., Mokhayeri, Y., Moradi, G., Morawska, L., Moreno Velásquez, I., Mousavi,

- S.M., Muhammed, O.S.S., Muruet, W., Naderi, M., Naghavi, M., Naik, G., Nascimento, B.R., Negoi, R.I., Nguyen, C.T., Nguyen, L.H., Nirayo, Y.L., Norrving, B., Noubiap, J.J., Ofori-Asenso, R., Ogbo, F.A., Olagunju, A.T., Olagunju, T.O., Owolabi, M.O., Pandian, J.D., Patel, S., Perico, N., Piradov, M.A., Polinder, S., Postma, M.J., Poustchi, H., Prakash, V., Qorbani, M., Rafiei, A., Rahim, F., Rahimi, K., Rahimi-Movaghar, V., Rahman, M., Rahman, M.A., Reis, C., Remuzzi, G., Renzaho, A.M.N., Ricci, S., Roberts, N.L.S., Robinson, S.R., Roeber, L., Roshandel, G., Sabbagh, P., Safari, H., Safari, S., Safiri, S., Sahebkar, A., Salehi Zahabi, S., Samy, A.M., Santalucia, P., Santos, I.S., Santos, J.V., Santric Milicevic, M.M., Sartorius, B., Sawant, A.R., Schutte, A.E., Sepanlou, S.G., Shafieesabet, A., Shaikh, M.A., Shams-Beyranvand, M., Sheikh, A., Sheth, K.N., Shibuya, K., Shigematsu, M., Shin, M.J., Shiue, I., Siabani, S., Sobaih, B.H., Sposato, L.A., Sutradhar, I., Sylaja, P.A., Szoek, C.E.I., Te Ao, B.J., Temsah, M.H., Temsah, O., Thrift, A.G., Tonelli, M., Topor-Madry, R., Tran, B.X., Tran, K.B., Truelsen, T.C., Tsadik, A.G., Ullah, I., Uthman, O.A., Vaduganathan, M., Valdez, P.R., Vasankari, T.J., Vasanthan, R., Venketasubramanian, N., Vosoughi, K., Vu, G.T., Waheed, Y., Weiderpass, E., Weldegewergs, K.G., Westerman, R., Wolfe, C.D.A., Wondafrash, D.Z., Xu, G., Yadollahpour, A., Yamada, T., Yatsuya, H., Yimer, E.M., Yonemoto, N., Yousefifard, M., Yu, C., Zaidi, Z., Zamani, M., Zarghi, A., Zhang, Y., Zodepy, S., Feigin, V.L., Vos, T., Murray, C.J.L., 2019. Global, regional, and national burden of stroke, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet Neurol.* 18: 439–458. doi:10.1016/S1474-4422(19)30034-1
- Khan, A.A., Lip, G.Y.H., 2019. The prothrombotic state in atrial fibrillation: pathophysiological and management implications. *Cardiovasc. Res.* 115: 31–45. doi:10.1093/cvr/cvy272
- Kleindorfer, D.O., Towfighi, A., Chaturvedi, S., Cockcroft, K.M., Gutierrez, J., Lombardi-Hill, D., Kamel, H., Kernan, W.N., Kittner, S.J., Leira, E.C., Lennon, O., Meschia, J.F., Nguyen, T.N., Pollak, P.M., Santangeli, P., Sharrief, A.Z., Smith, S.C., Turan, T.N., Williams, L.S., 2021. 2021 Guideline for the prevention of stroke in patients with stroke and transient ischemic attack; A guideline from the American Heart Association/American Stroke Association, *Stroke*. doi:10.1161/STR.0000000000000375
- Knuuti, J., Wijns, W., Achenbach, S., Agewall, S., Barbato, E., Bax, J.J., Capodanno, D., Cuisset, T., Deaton, C., Dickstein, K., Edvardsson, T., Escaned, J., Funck-Brentano, C., Gersh, B.J., Gilard, M., Hasdai, D., Hatala, R., Mahfoud, F., Masip, J., Muneretto, C., Prescott, E., Saraste, A., Storey, R.F., Svitil, P., Valgimigli, M., Windecker, S., Aboyans, V., Baigent, C., Collet, J.P., Dean, V., Delgado, V., Fitzsimons, D., Gale, C.P., Grobbee, D.E., Halvorsen, S., Hindricks, G., Iung, B., Juni, P., Katus, H.A., Landmesser, U., Leclercq, C., Lettino, M., Lewis, B.S., Merkely, B., Mueller, C., Petersen, S., Petronio, A.S., Richter, D.J., Roffi, M., Shlyakhto, E., Simpson, I.A., Sousa-Uva, M., Touyz, R.M., Benkhedda, S., Metzler, B., Sujayeva, V., Cosyns, B., Kusljagic, Z., Velchev, V., Panayi, G., Kala, P., Haahr-Pedersen, S.A., Kabil, H., Ainla, T., Kaukonen, T., Cayla, G., Pagava, Z., Woehrle, J., Kanakakis, J.,

- Toth, K., Gudnason, T., Peace, A., Aronson, D., Riccio, C., Elezi, S., Mirrahimov, E., Hansone, S., Sarkis, A., Babarskiene, R., Beissel, J., Cassar Maempel, A.J., Revenco, V., de Grooth, G.J., Pejkov, H., Juliebø, V., Lipiec, P., Santos, J., Chioncel, O., Duplyakov, D., Bertelli, L., Dikic, A.D., Studencan, M., Bunc, M., Alfonso, F., Back, M., Zellweger, M., Addad, F., Yildirim, A., Sirenko, Y., Clapp, B., 2020. 2019 ESC guidelines for the diagnosis and management of chronic coronary syndromes. *Eur. Heart J.* 41: 407–477. doi:10.1093/eurheartj/ehz425
- Krijthe, B.P., Heeringa, J., Kors, J.A., Hofman, A., Franco, O.H., Witteman, J.C.M., Stricker, B.H., 2013. Serum potassium levels and the risk of atrial fibrillation: The Rotterdam Study. *Int. J. Cardiol.* 168: 5411–5415. doi:10.1016/j.ijcard.2013.08.048
- Kuppahally, S.S., Akoum, N., Burgon, N.S., Badger, T.J., Kholmovski, E.G., Vijayakumar, S., Rao, S.N., Blauer, J., Fish, E.N., DiBella, E.V.R., MacLeod, R.S., McGann, C., Litwin, S.E., Marrouche, N.F., 2010. Left atrial strain and strain rate in patients with paroxysmal and persistent atrial fibrillation: Relationship to left atrial structural remodeling detected by delayed-enhancement MRI. *Circ. Cardiovasc. Imaging* 3: 231–239. doi:10.1161/CIRCIMAGING.109.865683
- Lang, R.M., Bierig, M., Devereux, R.B., Flachskampf, F.A., Foster, E., Pellikka, P.A., Picard, M.H., Roman, M.J., Seward, J., Shanewise, J., Solomon, S., Spencer, K.T., St. John Sutton, M., Stewart, W., 2006. Recommendations for chamber quantification. *Eur. J. Echocardiogr.* 7: 79–108. doi:10.1016/j.euje.2005.12.014
- Leong, D.P., Joyce, E., Debonnaire, P., Katsanos, S., Holman, E.R., Schali, M.J., Bax, J.J., Delgado, V., Marsan, N.A., 2017. Left Atrial Dysfunction in the Pathogenesis of Cryptogenic Stroke: Novel Insights from Speckle-Tracking Echocardiography. *J. Am. Soc. Echocardiogr.* 30: 71–79.e1. doi:10.1016/j.echo.2016.09.013
- Leung, M., Van Rosendaal, P.J., Abou, R., Ajmone Marsan, N., Leung, D.Y., Delgado, V., Bax, J.J., 2018. Left atrial function to identify patients with atrial fibrillation at high risk of stroke: New insights from a large registry. *Eur. Heart J.* 39: 1416–1425. doi:10.1093/eurheartj/ehx736
- Levey, A.S., Eckardt, K.U., Tsukamoto, Y., Levin, A., Coresh, J., Rossert, J., De Zeeuw, D., Hostetter, T.H., Lameire, N., Eknoyan, G., Willis, K., 2005. Definition and classification of chronic kidney disease: A position statement from Kidney Disease: Improving Global Outcomes (KDIGO). *Kidney Int.* 67: 2089–2100. doi:10.1111/j.1523-1755.2005.00365.x
- McDonagh, T.A., Metra, M., Adamo, M., Gardner, R.S., Baumbach, A., Böhm, M., Burri, H., Butler, J., Čelutkienė, J., Chioncel, O., Cleland, J.G.F., Coats, A.J.S., Crespo-Leiro, M.G., Farmakis, D., Gilard, M., Heymans, S., Hoes, A.W., Jaarsma, T., Jankowska, E.A., Lainscak, M., Lam, C.S.P., Lyon, A.R., McMurray, J.J. V., Mebazaa, A., Mindham, R., Muneretto, C., Francesco Piepoli, M., Price, S., Rosano, G.M.C., Ruschitzka, F., Kathrine Skibellund, A., de Boer, R.A., Christian Schulze, P., Abdelhamid, M., Aboyans, V., Adamopoulos, S., Anker, S.D., Arbelo, E., Asteggiano, R., Bauersachs, J.,



- Bayes-Genis, A., Borger, M.A., Budts, W., Cikes, M., Damman, K., Delgado, V., Dendale, P., Dilaveris, P., Drexel, H., Ezekowitz, J., Falk, V., Fauchier, L., Filippatos, G., Fraser, A., Frey, N., Gale, C.P., Gustafsson, F., Harris, J., Iung, B., Janssens, S., Jessup, M., Konradi, A., Kotecha, D., Lambrinou, E., Lancellotti, P., Landmesser, U., Leclercq, C., Lewis, B.S., Leyva, F., Linhart, A., Løchen, M.-L., Lund, L.H., Mancini, D., Masip, J., Milicic, D., Mueller, C., Nef, H., Nielsen, J.-C., Neubeck, L., Noutsias, M., Petersen, S.E., Sonia Petronio, A., Ponikowski, P., Prescott, E., Rakisheva, A., Richter, D.J., Schlyakhto, E., Seferovic, P., Senni, M., Sitges, M., Sousa-Uva, M., Tocchetti, C.G., Touyz, R.M., Tschoepe, C., Waltenberger, J., Adamo, M., Baumbach, A., Böhm, M., Burri, H., Čelutkienė, J., Chioncel, O., Cleland, J.G.F., Coats, A.J.S., Crespo-Leiro, M.G., Farmakis, D., Gardner, R.S., Gilard, M., Heymans, S., Hoes, A.W., Jaarsma, T., Jankowska, E.A., Lainscak, M., Lam, C.S.P., Lyon, A.R., McMurray, J.J. V., Mebazaa, A., Mindham, R., Muneretto, C., Piepoli, M.F., Price, S., Rosano, G.M.C., Ruschitzka, F., Skibelund, A.K., 2021. 2021 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure. *Eur. Heart J.* 42: 3599–3726. doi:10.1093/eurheartj/ehab368
- Micheli, S., Agnelli, G., Caso, V., Alberti, A., Palmerini, F., Venti, M., Paciaroni, M., 2012. Acute myocardial infarction and heart failure in acute stroke patients: Frequency and influence on clinical outcome. *J. Neurol.* 259: 106–110. doi:10.1007/s00415-011-6136-4
- Morris, D.A., Takeuchi, M., Krisper, M., Köhnecke, C., Bekfani, T., Carstensen, T., Hassfeld, S., Dorenkamp, M., Otani, K., Takigiku, K., Izumi, C., Yuda, S., Sakata, K., Ohte, N., Tanabe, K., Osmanoglou, E., Kühnle, Y., Döngen, H.D., Nakatani, S., Otsuji, Y., Haverkamp, W., Boldt, L.H., 2015. Normal values and clinical relevance of left atrial myocardial function analysed by speckle-tracking echocardiography: multicentre study. *Eur. Heart J. Cardiovasc. Imaging* 16: 364–372. doi:10.1093/ehjci/jeu219
- Nagueh, S.F., Smiseth, O.A., Appleton, C.P., Byrd, B.F., Dokainish, H., Edvardsen, T., Flachskampf, F.A., Gillebert, T.C., Klein, A.L., Lancellotti, P., Marino, P., Oh, J.K., Popescu, B.A., Waggoner, A.D., 2016. Recommendations for the Evaluation of Left Ventricular Diastolic Function by Echocardiography: An Update from the American Society of Echocardiography and the European Association of Cardiovascular Imaging. *J. Am. Soc. Echocardiogr.* 29: 277–314. doi:10.1016/j.echo.2016.01.011
- Naser, N., Dilic, M., Durak, A., Kulic, M., Pepic, E., Smajic, E., Kusljagic, Z., 2017. The Impact of Risk Factors and Comorbidities on The Incidence of Atrial Fibrillation. *Mater. Socio Medica* 29: 231. doi:10.5455/msm.2017.29.231-236
- O'Neill, J., Swoboda, P.P., Plein, S., Tayebjee, M.H., 2018. Left atrial size and function in a South Asian population and their potential influence on the risk of atrial fibrillation. *Clin. Cardiol.* 41: 1379–1385. doi:10.1002/clc.23064
- Obokata, M., Negishi, K., Kurosawa, K., Tateno, R., Tange, S., Arai, M., Amano, M., Kurabayashi, M., 2014. Left atrial strain provides incremental value for embolism risk stratification over CHA2DS2-VASc score and indicates

- prognostic impact in patients with atrial fibrillation. *J. Am. Soc. Echocardiogr.* 27. doi:10.1016/j.echo.2014.03.010
- Osraneek, M., Bursi, F., Bailey, K.R., Grossardt, B.R., Brown, R.D., Kopecky, S.L., Tsang, T.S., Seward, J.B., 2005. Left atrial volume predicts cardiovascular events in patients originally diagnosed with lone atrial fibrillation: Three-decade follow-up. *Eur. Heart J.* 26: 2556–2561. doi:10.1093/eurheartj/ehi483
- Pandian, J.D., Gall, S.L., Kate, M.P., Silva, G.S., Akinyemi, R.O., Ovbiagele, B.I., Lavados, P.M., Gandhi, D.B.C., Thrift, A.G., 2018. Prevention of stroke: a global perspective. *Lancet* 392: 1269–1278. doi:10.1016/S0140-6736(18)31269-8
- Pathan, F., D'Elia, N., Nolan, M.T., Marwick, T.H., Negishi, K., 2017. Normal Ranges of Left Atrial Strain by Speckle-Tracking Echocardiography: A Systematic Review and Meta-Analysis. *J. Am. Soc. Echocardiogr.* 30: 59-70.e8. doi:10.1016/j.echo.2016.09.007
- Pathan, F., Sivaraj, E., Negishi, K., Rafiudeen, R., Pathan, S., D'Elia, N., Galligan, J., Neilson, S., Fonseca, R., Marwick, T.H., 2018. Use of Atrial Strain to Predict Atrial Fibrillation After Cerebral Ischemia. *JACC Cardiovasc. Imaging* 11: 1557–1565. doi:10.1016/j.jcmg.2017.07.027
- Petre, I., Onciul, S., Iancovici, S., Zamfir, D., Stoian, M., Scărlătescu, A., Diaconeasa, A., Acatrinei, C., Dorobanțu, M., 2019. Left Atrial Strain for Predicting Atrial Fibrillation Onset in Hypertensive Patients. *High Blood Press. Cardiovasc. Prev.* 26: 331–337. doi:10.1007/s40292-019-00326-4
- Powers, W.J., Rabinstein, A.A., Ackerson, T., Adeoye, O.M., Bambakidis, N.C., Becker, K., Biller, J., Brown, M., Demerschalk, B.M., Hoh, B., Jauch, E.C., Kidwell, C.S., Leslie-Mazwi, T.M., Ovbiagele, B., Scott, P.A., Sheth, K.N., Southerland, A.M., Summers, D. V., Tirschwell, D.L., 2019. Guidelines for the early management of patients with acute ischemic stroke: 2019 update to the 2018 guidelines for the early management of acute ischemic stroke a guideline for healthcare professionals from the American Heart Association/American Stroke A, Stroke. doi:10.1161/STR.0000000000000211
- Rafaqat, Saira, Rafaqat, Sana, Khurshid, H., Rafaqat, Simon, 2022. Electrolyte's imbalance role in atrial fibrillation: Pharmacological management. *Int. J. Arrhythmia* 23. doi:10.1186/s42444-022-00065-z
- Rasmussen, S.M.A., Olsen, F.J., Jørgensen, P.G., Fritz-Hansen, T., Jespersen, T., Gislason, G., Biering-Sørensen, T., 2019. Utility of left atrial strain for predicting atrial fibrillation following ischemic stroke. *Int. J. Cardiovasc. Imaging* 35: 1605–1613. doi:10.1007/s10554-019-01601-0
- Rausch, K., Shiino, K., Putrino, A., Lam, A.K. yin, Scalia, G.M., Chan, J., 2019. Reproducibility of global left atrial strain and strain rate between novice and expert using multi-vendor analysis software. *Int. J. Cardiovasc. Imaging* 35: 419–426. doi:10.1007/s10554-018-1453-7
- Reddy, V., Taha, W., Kundumadam, S., Khan, M., 2017. Atrial fibrillation and hyperthyroidism: A literature review. *Indian Heart J.* 69: 545–550. doi:10.1016/j.ihj.2017.07.004
- Rienstra, M., Lubitz, S.A., Mahida, S., Magnani, J.W., Fontes, J.D., Sinner, M.F.,



- Van Gelder, I.C., Ellinor, P.T., Benjamin, E.J., 2012. Symptoms and Functional Status of Patients With Atrial Fibrillation. *Circulation* 125: 2933–2943. doi:10.1161/circulationaha.111.069450
- Rizos, T., Güntner, J., Jenetzky, E., Marquardt, L., Reichardt, C., Becker, R., Reinhardt, R., Hepp, T., Kirchhof, P., Aleynichenko, E., Ringleb, P., Hacke, W., Veltkamp, R., 2012. Continuous stroke unit electrocardiographic monitoring versus 24-hour holter electrocardiography for detection of paroxysmal atrial fibrillation after stroke. *Stroke* 43: 2689–2694. doi:10.1161/STROKEAHA.112.654954
- Ross, D.S., Burch, H.B., Cooper, D.S., Greenlee, M.C., Laurberg, P., Maia, A.L., Rivkees, S.A., Samuels, M., Sosa, J.A., Stan, M.N., Walter, M.A., 2016. 2016 American Thyroid Association Guidelines for Diagnosis and Management of Hyperthyroidism and Other Causes of Thyrotoxicosis. *Thyroid* 26: 1343–1421. doi:10.1089/thy.2016.0229
- Russo, C., Hahn, R.T., Jin, Z., Homma, S., Sacco, R.L., Di Tullio, M.R., 2010. Comparison of echocardiographic single-plane versus biplane method in the assessment of left atrial volume and validation by real time three-dimensional echocardiography. *J. Am. Soc. Echocardiogr.* 23: 954–960. doi:10.1016/j.echo.2010.06.010
- Saber Tehrani, A.S., Kattah, J.C., Kerber, K.A., Gold, D.R., Zee, D.S., Urrutia, V.C., Newman-Toker, D.E., 2018. Diagnosing stroke in acute dizziness and vertigo pitfalls and pearls. *Stroke* 49: 788–795. doi:10.1161/STROKEAHA.117.016979
- Sanchis, L., Montserrat, S., Obach, V., Cervera, Á., Chamorro, Á., Vidal, B., Mas-Stachurska, A., Bijmens, B., Sitges, M., 2016. Left Atrial Function Is Impaired in Some Patients With Stroke of Undetermined Etiology: Potential Implications for Evaluation and Therapy. *Rev. Española Cardiol. (English Ed.* 69: 650–656. doi:10.1016/j.rec.2015.11.033
- Sanna, T., Diener, H.-C., Passman, R.S., Di Lazzaro, V., Bernstein, R.A., Morillo, C.A., Rymer, M.M., Thijs, V., Rogers, T., Beckers, F., Lindborg, K., Brachmann, J., 2014. Cryptogenic Stroke and Underlying Atrial Fibrillation. *N. Engl. J. Med.* 370: 2478–2486. doi:10.1056/nejmoa1313600
- Saraswati, D. R., 2021. Transisi epidemiologi stroke sebagai penyebab kematian pada semua kelompok usia di indonesia. *J. Kedokt.* 2: 81–86.
- Sareban, M., Perz, T., Macholz, F., Reich, B., Schmidt, P., Fried, S., Mairbäurl, H., Berger, M.M., Niebauer, J., 2017. Reliability of echocardiographic speckle-tracking derived bi-atrial strain assessment under different hemodynamic conditions. *Int. J. Cardiovasc. Imaging* 33: 1685–1692. doi:10.1007/s10554-017-1154-7
- Saric, M., Armour, A.C., Arnaout, M.S., Chaudhry, F.A., Grimm, R.A., Kronzon, I., Landeck, B.F., Maganti, K., Michelena, H.I., Tolstrup, K., 2016. Guidelines for the Use of Echocardiography in the Evaluation of a Cardiac Source of Embolism. *J. Am. Soc. Echocardiogr.* 29: 1–42. doi:10.1016/j.echo.2015.09.011
- Schnabel, R.B., Haeusler, K.G., Healey, J.S., Freedman, B., Boriani, G., Brachmann, J., Brandes, A., Bustamante, A., Casadei, B., Crijns, H.J.G.M.,

- Doehner, W., Engström, G., Fauchier, L., Friberg, L., Gladstone, D.J., Glotzer, T. V., Goto, S., Hankey, G.J., Harbison, J.A., Hobbs, F.D.R., Johnson, L.S.B., Kamel, H., Kirchhof, P., Korompoki, E., Krieger, D.W., Lip, G.Y.H., Løchen, M.L., Mairesse, G.H., Montaner, J., Neubeck, L., Ntaios, G., Piccini, J.P., Potpara, T.S., Quinn, T.J., Reiffel, J.A., Ribeiro, A.L.P., Rienstra, M., Rosenqvist, M., Sakis, T., Sinner, M.F., Svendsen, J.H., Van Gelder, I.C., Wachter, R., Wijeratne, T., Yan, B., 2019. Searching for Atrial Fibrillation Poststroke: A White Paper of the AF-SCREEN International Collaboration. *Circulation* 140: 1834–1850. doi:10.1161/CIRCULATIONAHA.119.040267
- Seko, Y., Kato, T., Haruna, T., Izumi, T., Miyamoto, S., Nakane, E., Inoko, M., 2018. Association between atrial fibrillation, atrial enlargement, and left ventricular geometric remodeling. *Sci. Rep.* 8: 1–8. doi:10.1038/s41598-018-24875-1
- Seyed Ahmadi, S., Svensson, A.M., Pivodic, A., Rosengren, A., Lind, M., 2020. Risk of atrial fibrillation in persons with type 2 diabetes and the excess risk in relation to glycaemic control and renal function: A Swedish cohort study. *Cardiovasc. Diabetol.* 19: 1–12. doi:10.1186/s12933-019-0983-1
- Sonaglioni, A., Vincenti, A., Baravelli, M., Rigamonti, E., Tagliabue, E., Bassi, P., Nicolosi, G.L., Anzà, C., Lombardo, M., 2019. Prognostic value of global left atrial peak strain in patients with acute ischemic stroke and no evidence of atrial fibrillation. *Int. J. Cardiovasc. Imaging* 35: 603–613. doi:10.1007/s10554-018-1485-z
- Sposato, L.A., Cipriano, L.E., Saposnik, G., Vargas, E.R., Riccio, P.M., Hachinski, V., 2015. Diagnosis of atrial fibrillation after stroke and transient ischaemic attack: A systematic review and meta-analysis. *Lancet Neurol.* 14: 377–387. doi:10.1016/S1474-4422(15)70027-X
- Staerk L, Sherer JA, Ko D, Benjamin EJ, Helm RH. Atrial Fibrillation: Epidemiology, Pathophysiology, and Clinical Outcomes. *Circ Res.* 2017 Apr 28;120(9):1501-1517. doi: 10.1161/CIRCRESAHA.117.309732. PMID: 28450367; PMCID: PMC5500874.
- Steinberg, B.A., Shrader, P., Pieper, K., Thomas, L., Allen, L.A., Ansell, J., Chan, P.S., Ezekowitz, M.D., Fonarow, G.C., Freeman, J. V., Gersh, B.J., Kowey, P.R., Mahaffey, K.W., Naccarelli, G. V., Reiffel, J.A., Singer, D.E., Peterson, E.D., Piccini, J.P., Sobti, S., Alfieri, A., Bacon, J., Bedwell, N., Berry, J., Bhagwat, R., Bloom, S., Boccalandro, F., Parilak, L., Capo, J., Kapadia, S., Edwin Morriss, J., Muneer, B., Gogia, H., Herzog, W., Hotchkiss, D., Ip, J., Jaffrani, N., Jones, A., Kazmierski, J., Khan, W., Kneller, G.L., Labroo, A., Jaffe, B., Lebenthal, M., Lee, D., Ahmadian, H.R., Maccaro, P., Mayer, N., McLaughlin, P., Mendelson, R., Padanilam, B., Poock, J., Raffetto, J., Sackett, M., Schneider, R., Shanes, J., Smiley, N., Snipes, C., Sotolongo, R., Speirs, S., Tak, T., Radhawa, P., Kusmirek, S.L., Jetty, P., Vasiliasauskas, T., Spiller, D., Yarlagadda, C., Griffin, J., Simons, R., Castor, T., McGarvey, J., Guthrie, R., Deriso, G., Vogel, C., Benjamin, S., Detweiler, R., Pappas, J., Littlefield, R., Grena, P., Goldbarg, S., Browne, K., Forman, S., Ebinger, M., Rosenbaum, D., Williams, D., Stein, R., Davis, K., Alvarado, O., Rothman, S., Siouty, H., Kobayashi, J., Scollan, D., Adler, A., Serrano, D.R., Gottlieb, C., Gornick, C.,

- Paliwal, Y., Mitra, R., Aslam, S.A., Allen, L., Turakhia, M., Lurie, M., Sun, A., Rink, L., Atieh, M., Drabick, A., Harman, E., Ashcraft, B., Rivera-Zayas, E., Henes, C., Schwartz, S., Malave, H., Chu, A., Mukherjee, S., Underhill, M., Nilsson, K.R., DiGiovanna, M., McPherson, C., Bowden, T.R., Pardell, H., Smith, R., Hayek, E., Reddy, R., Sawyer, H., Park, H., Varquez, M., Pow, T., Harris, J., Sogade, F., Dunbar, C.P., Dongas, J., Birriel, J., Sra, J., French, J.H., Farrah, V., Cirbus, J., Shaoulain, E., Whitehill, J., Backer, T.S., Grunstra, B., Muller, A., Mahal, S., Dawson, M., Earl, J., Sangosanya, A.O., Tang, S., Quaddour, A., Salacata, A., Estevez, R., Troyan, B., Jiang, N., Karim, A., Krishnaswamy, K., Ayala, R., Suneja, R., Inzerello, A., Patel, P., Kutscher, A., Wolf, T., Ali, S., Mera, F., Gigliotti, O., Baig, M., Lesh, K., Korff, G., Jimenez, H., Kong, M., Soderlund, C., Chin, J., Allred, J., Canosa, R., Foxman, A., Wilson, S., Shammass, N., Tang, A., Kaluski, E., Thomas Svinarich, J., Covalsky, J., Sundrani, R., Singal, D., Norris, J., Nassif, R., Ahn, J., Goldberg, J., Pimentel, S., Friedlander, I., Zagrodzky, J., Cameron, C., Husain, R., Shah, R., Quintana, O., Mehta, H., Weisberg, I., Vorperian, V., Ball, E., Morawski, E., Chane, M., Khan, S., Ariani, M.K., Bates, C., Garg, R., Bastani, A., Grewal, H., Dave, K., Solbrig, R., Ravi, C., Torres-Heisecke, R., Assal, C., Frisch, D.R., Richwine, R., White, L., Irimpen, A., Moran, M.D., Kmetzo, J., Barnum, O., Singh, N., Chang, A., Longshaw, K., Quion, J.A., Marais, H., Liu, J., Chawla, R., Huth, M., Barrett, T., Bargout, R., Murphy, A., Razzaque, N., Allen, D., Giep, S., Pounds, K., Peterson, C.R., Vedere, A., Bharadia, J., Yee, H., Challappa, K., Garcia, D., Herweg, B., Kuliev, A., Pearlman, S., Salek, A.T., Noveck, H., Fleming, J., Akhtar, A., Tran, D., Malik, A., Cosby, J.L., Lopez, R., Bhakta, R., Gutman, N., Wang, J., Gabris, M., Kwan, T.W., Gehi, A., Desai, D., Fernandes, V.L., Bead, V., Salam, T., Merkes, K., Cole, C., Banker, J., Sacco, J., Ssenyamantono, B., French, W.J., Quick, A., Mehta, V., Schlaun, A., Pandhi, J., Shaikh, J.Z., Weiner, J., Kabra, R., Rodriguez, H., Tenaglia, A., LeLorier, P., Blitz, L., Logemann, T., Christodoulou, C., Heath, J., Arce-Nunez, E., Moore, H., Markwood, T., Guerra, Y.D., Morris, M.T., Ramos, L., Shinn, T., Welka, S., Divakaran, V., Akram Khan, M., Mintz, R., Galski, T., Young, J., Paraschos, A., Nelson, J.D., Grodin, J., Harnick, D., Bredlau, C., Chhabra, A., Dandillaya, R., Gazmuri, R., Radin, M., D'Agostino, R., Nwokolo, C., Shah, V., Henrikson, C., Navratil, D., Lieb, M., Banerjee, S., Chamberlain, R.D., Howell, S., Rouvelas, P., Kapoor, N., William Eaves, Aggarwala, G., Elgabry, I., Saber, W., Passi, R., Ahmed, S., Rashtian, M., Mendoza, I., 2018. Frequency and outcomes of reduced dose Non-Vitamin K antagonist anticoagulants: Results from ORBIT-AF II (The outcomes registry for better informed treatment of atrial fibrillation II). *J. Am. Heart Assoc.* 7. doi:10.1161/JAHA.117.007633
- Tsang, T.S.M., Abhayaratna, W.P., Barnes, M.E., Miyasaka, Y., Gersh, B.J., Bailey, K.R., Cha, S.S., Seward, J.B., 2006. Prediction of cardiovascular outcomes with left atrial size: Is volume superior to area or diameter? *J. Am. Coll. Cardiol.* 47: 1018–1023. doi:10.1016/j.jacc.2005.08.077
- van der Burgh, A.C., Geurts, S., Ikram, M.A., Hoorn, E.J., Kavousi, M., Chaker, L., 2022. Bidirectional Association Between Kidney Function and Atrial



- Fibrillation: A Population-Based Cohort Study. *J. Am. Heart Assoc.* 11. doi:10.1161/JAHA.122.025303
- van der Does, L.J.M.E., Lanthers, E.A.H., Teuwen, C.P., Mouws, E.M.J.P., Yaksh, A., Knops, P., Kik, C., Bogers, A.J.J.C., de Groot, N.M.S., 2020. The Effects of Valvular Heart Disease on Atrial Conduction During Sinus Rhythm. *J. Cardiovasc. Transl. Res.* 13: 632–639. doi:10.1007/s12265-019-09936-8
- Virani, S.S., Alonso, A., Benjamin, E.J., Bittencourt, M.S., Callaway, C.W., Carson, A.P., Chamberlain, A.M., Chang, A.R., Cheng, S., Delling, F.N., Djousse, L., Elkind, M.S.V., Ferguson, J.F., Fornage, M., Khan, S.S., Kissela, B.M., Knutson, K.L., Kwan, T.W., Lackland, D.T., Lewis, T.T., Lichtman, J.H., Longenecker, C.T., Loop, M.S., Lutsey, P.L., Martin, S.S., Matsushita, K., Moran, A.E., Mussolino, M.E., Perak, A.M., Rosamond, W.D., Roth, G.A., Sampson, U.K.A., Satou, G.M., Schroeder, E.B., Shah, S.H., Shay, C.M., Spartano, N.L., Stokes, A., Tirschwell, D.L., VanWagner, L.B., Tsao, C.W., Wong, S.S., Heard, D.G., 2020. Heart disease and stroke statistics—2020 update: A report from the American Heart Association, *Circulation*. doi:10.1161/CIR.0000000000000757
- Wachter, R., Gröschel, K., Gelbrich, G., Hamann, G.F., Kermer, P., Liman, J., Seegers, J., Wasser, K., Schulte, A., Jürries, F., Messerschmid, A., Behnke, N., Gröschel, S., Uphaus, T., Grings, A., Ibis, T., Klimpe, S., Wagner-Heck, M., Arnold, M., Protsenko, E., Heuschmann, P.U., Conen, D., Weber-Krüger, M., 2017. Holter-electrocardiogram-monitoring in patients with acute ischaemic stroke (Find-AFRANDOMISED): an open-label randomised controlled trial. *Lancet Neurol.* 16: 282–290. doi:10.1016/S1474-4422(17)30002-9
- Wakami, K., Ohte, N., Asada, K., Fukuta, H., Goto, T., Mukai, S., Narita, H., Kimura, G., 2009. Correlation between Left Ventricular End-diastolic Pressure and Peak Left Atrial Wall Strain during Left Ventricular Systole. *J. Am. Soc. Echocardiogr.* 22: 847–851. doi:10.1016/j.echo.2009.04.026
- Williams, B., Mancia, G., Spiering, W., Rosei, E.A., Azizi, M., Burnier, M., Clement, D., Coca, A., De Simone, G., Dominiczak, A., Kahan, T., Mahfoud, F., Redon, J., Ruilope, L., Zanchetti, A., Kerins, M., Kjeldsen, S., Kreutz, R., Laurent, S., Lip, G.Y.H., McManus, R., Narkiewicz, K., Ruschitzka, F., Schmieder, R., Shlyakhto, E., Tsioufis, K., Aboyans, V., Desormais, I., 2018. 2018 practice guidelines for the management of arterial hypertension of the European society of cardiology and the European society of hypertension ESC/ESH task force for the management of arterial hypertension, *Journal of Hypertension*. doi:10.1097/HJH.0000000000001961
- Yasuda, R., Murata, M., Roberts, R., Tokuda, H., Minakata, Y., Suzuki, K., Tsuruta, H., Kimura, T., Nishiyama, N., Fukumoto, K., Aizawa, Y., Tanimoto, K., Takatsuki, S., Abe, T., Fukuda, K., 2015. Left atrial strain is a powerful predictor of atrial fibrillation recurrence after catheter ablation: Study of a heterogeneous population with sinus rhythm or atrial fibrillation. *Eur. Heart J. Cardiovasc. Imaging* 16: 1008–1014. doi:10.1093/ehjci/jev028
- Yong, J.H.E., Thavorn, K., Hoch, J.S., Mamdani, M., Thorpe, K.E., Dorian, P., Sharma, M., Laupacis, A., Gladstone, D.J., 2016. Potential Cost-Effectiveness

- of Ambulatory Cardiac Rhythm Monitoring after Cryptogenic Stroke. *Stroke* 47: 2380–2385. doi:10.1161/STROKEAHA.115.011979
- Yuda, S., Muranaka, A., Miura, T., 2016. Clinical implications of left atrial function assessed by speckle tracking echocardiography. *J. Echocardiogr.* 14: 104–112. doi:10.1007/s12574-016-0283-7
- Zoni-Berisso, M., Lercari, F., Carazza, T., Domenicucci, S., 2014. Epidemiology of atrial fibrillation: European perspective. *Clin. Epidemiol.* 6: 213–220. doi:10.2147/CLEP.S47385