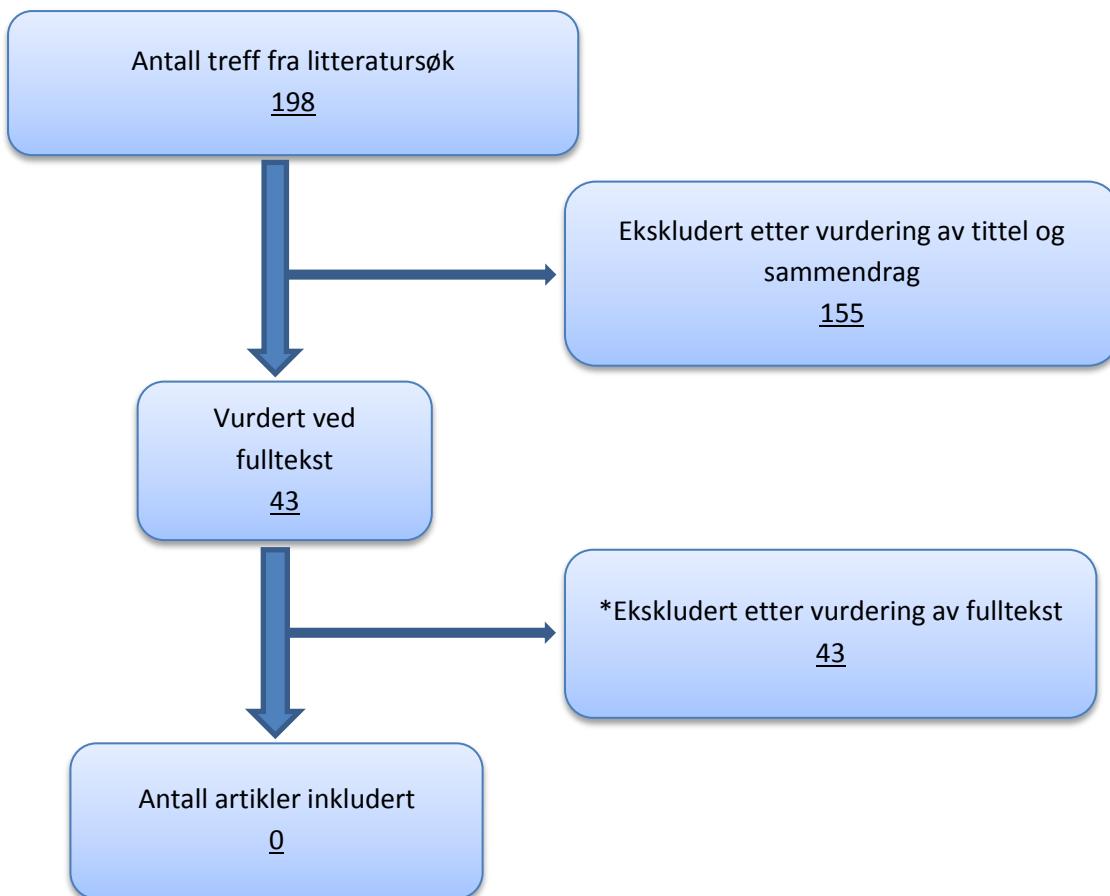


Dokumentasjonsark: Nasjonal faglig retningslinje for hjerneslag

Spørsmål 1.11: Gir iv trombolytisk behandling etter billedbasert seleksjon bedre outcome enn ingen trombolyse ved akutt hjerneinfarkt med ukjent debut, herunder oppvåkningsslag, eller senere enn 4,5 timer etter debut

P	Akutt hjerneinfarkt med ukjent debut, herunder oppvåkningsslag, eller debut for mer enn 4,5 t siden	
I	IV trombolyse etter billedbasert seleksjon	Dato for søker: 13.05.2016
C	Ikke IV trombolyse	Søk oppdatert dato:
O	NIHSS, mRS, blødning, død	Bibliotek for helseforvaltningen



* Se tabell 2 for årsak til eksklusjon av studier etter vurdering av fulltekst

Tabell 2. Ekskluderte referanser. Sammendraget/tittel funnet relevant, ekskludert etter vurdering av fulltekst av artikkel.

Forfatter, år	Kommentar/begrunnelse for eksklusjon
Wardlaw, Murray, Berge, & del Zoppo, 2014	Møter ikke PICO
Prabhakaran, Ruff, & Bernstein, 2015	Møter ikke PICO grunnet mangel på kontrollgruppe; feil tidsrom for oppstart av trombolyse
Chapman et al., 2014	Ikke en systematisk litteraturoversikt
Medel et al., 2014	Ikke en systematisk litteraturoversikt
Hu, Xu, Lu, & Chen, 2014	Redusert overførbarhet til PICO grunnet populasjon
Miller, Brook, Riedel, Hirsch, & Yoo, 2014	Ikke en systematisk litteraturoversikt
M. P. Lin, Tsivgoulis, Alexandrov, & Chang, 2015	Ikke en systematisk litteraturoversikt
Fisher & Saver, 2015	Ikke en systematisk litteraturoversikt
Ip & Liebeskind, 2014	Ikke en systematisk litteraturoversikt
Huang et al., 2016	Hensikten med studien møter ikke PICO
Sanelli et al., 2014	Ikke en systematisk litteraturoversikt
El-Koussy, Schroth, Brekenfeld, & Arnold, 2014	Ikke en systematisk litteraturoversikt
Mair & Wardlaw, 2014	Ikke en systematisk litteraturoversikt
Gasparian, Sanossian, Shiroishi, & Liebeskind, 2015	Ikke en systematisk litteraturoversikt
Na, Sohn, & Kim, 2015	Ikke en systematisk litteraturoversikt
Q. Lin et al., 2016	Møter ikke PICO grunnet aktiv behandling hos kontrollgruppe
Scott Pannell, Santiago-Dieppa, & Khalessi, 2014	Systematisk litteraturoversikt (narrative syntese) med svært lav metodisk kvalitet
Rosso & Samson, 2014	Ikke en systematisk litteraturoversikt
Ahmetgjekaj et al., 2014	Ikke en systematisk litteraturoversikt
Kim et al., 2014	Ikke en systematisk litteraturoversikt

Zlatareva & Traykova, 2014	Ikke en systematisk litteraturoversikt
Daniere et al., 2014	Ikke en systematisk litteraturoversikt
Leigh & Krakauer, 2014	Ikke en systematisk litteraturoversikt
Meseguer et al., 2014	Møter ikke PICO grunnet intervasjon
Tisserand et al., 2014	Ikke en systematisk litteraturoversikt
Burton et al., 2015	Møter ikke PICO grunnet mangel på kontrollgruppe
Marshall, 2015	Ikke en systematisk litteraturoversikt
Kurz et al., 2016	Ikke en systematisk litteraturoversikt
Gomis & Davalos, 2014	Ikke en systematisk litteraturoversikt
Tsigkoulis, Katsanos, & Alexandrov, 2014	Ikke en systematisk litteraturoversikt
M. P. Lin & Sanossian, 2015	Ikke en systematisk litteraturoversikt
Tong, Hou, Fiebach, & Wintermark, 2014	Ikke en systematisk litteraturoversikt
Menon, Campbell, Levi, & Goyal, 2015	Ikke en systematisk litteraturoversikt
Demaerschalk et al., 2016	Ikke en systematisk litteraturoversikt
Mair et al., 2015	Hensikten med studien møter ikke PICO
Burton et al., 2014	Kostnytte-analyse; hensikten med studien møter ikke PICO
Pantoni, Fierini, & Poggesi, 2014	Ikke en systematisk litteraturoversikt
Davis & Donnan, 2014	Ikke en systematisk litteraturoversikt
Vagal et al., 2014	Ikke en systematisk litteraturoversikt
Campbell & Macrae, 2015	Ikke en systematisk litteraturoversikt
Fugate & Rabinstein, 2014	Ikke en systematisk litteraturoversikt
Wouters, Lemmens, Dupont, & Thijs, 2014	Ikke en systematisk litteraturoversikt
Rimmele & Thomalla, 2014	Ikke en systematisk litteraturoversikt

Fullstendig referanseliste (inkluderte og ekskluderte referanser).

- Ahmetgjekaj, I., Kabashi-Mucaj, S., Lascu, L. C., Kabashi, A., Bondari, A., Bondari, S., . . . Shatri, J. (2014). Magnetic resonance imaging criteria for thrombolysis in hyperacute cerebral infarction. *Current Health Sciences Journal*, 40(2), 111-115. doi: <http://dx.doi.org/10.12865/CHSJ.40.02.05>
- Burton, K. R., Dhanoa, D., Aviv, R. I., Moody, A. R., Kapral, M. K., & Laupacis, A. (2015). Perfusion CT for selecting patients with acute ischemic stroke for intravenous thrombolytic therapy. *Radiology*, 274(1), 103-114. doi: <http://dx.doi.org/10.1148/radiol.14140728>
- Burton, K. R., Perlis, N., Krahn, M., Kapral, M. K., Moody, A., & Laupacis, A. (2014). A systematic review, critical appraisal and analysis of the quality of economic evaluations in stroke imaging. *Value in Health*, 17 (3), A121. doi: <http://dx.doi.org/10.1016/j.jval.2014.03.703>
- Campbell, B. C., & Macrae, I. M. (2015). Translational perspectives on perfusion-diffusion mismatch in ischemic stroke. *International Journal of Stroke*, 10(2), 153-162. doi: <http://dx.doi.org/10.1111/ij.s.12186>
- Chapman, S. N., Mehendiratta, P., Johansen, M. C., McMurry, T. L., Johnston, K. C., & Southerland, A. M. (2014). Current perspectives on the use of intravenous recombinant tissue plasminogen activator (tPA) for treatment of acute ischemic stroke. *Vascular Health & Risk Management*, 10, 75-87. doi: <http://dx.doi.org/10.2147/VHRM.S39213>
- Daniere, F., Edjlali-Goujon, M., Mellerio, C., Turc, G., Naggara, O., Tsilikas, L., . . . Oppenheim, C. (2014). MR screening of candidates for thrombolysis: How to identify stroke mimics? *Journal of Neuroradiology. Journal de Neuroradiologie*, 41(5), 283-295. doi: <http://dx.doi.org/10.1016/j.neurad.2014.05.008>
- Davis, S., & Donnan, G. A. (2014). Time is Penumbra: imaging, selection and outcome. The Johann jacob wepfer award 2014. *Cerebrovascular Diseases*, 38(1), 59-72. doi: <http://dx.doi.org/10.1159/000365503>
- Demaerschalk, B. M., Kleindorfer, D. O., Adeoye, O. M., Demchuk, A. M., Fugate, J. E., Grotta, J. C., . . . Smith, E. E. (2016). Scientific Rationale for the Inclusion and Exclusion Criteria for Intravenous Alteplase in Acute Ischemic Stroke A Statement for Healthcare Professionals from the American Heart Association/American Stroke Association. *Stroke*, 47(2), 581-641. doi: <http://dx.doi.org/10.1161/STR.00000000000000086>
- El-Koussy, M., Schroth, G., Brekenfeld, C., & Arnold, M. (2014). Imaging of acute ischemic stroke. *European Neurology*, 72(5-6), 309-316. doi: <http://dx.doi.org/10.1159/000362719>
- Fisher, M., & Saver, J. L. (2015). Future directions of acute ischaemic stroke therapy. *Lancet Neurology*, 14(7), 758-767. doi: [http://dx.doi.org/10.1016/S1474-4422\(15\)00054-X](http://dx.doi.org/10.1016/S1474-4422(15)00054-X)
- Fugate, J. E., & Rabinstein, A. A. (2014). Update on intravenous recombinant tissue plasminogen activator for acute ischemic stroke. *Mayo Clinic Proceedings*, 89(7), 960-972. doi: <http://dx.doi.org/10.1016/j.mayocp.2014.03.001>
- Gasparian, G. G., Sanossian, N., Shiroishi, M. S., & Liebeskind, D. S. (2015). Imaging of occlusive thrombi in acute ischemic stroke. *International Journal of Stroke*, 10(3), 298-305. doi: <http://dx.doi.org/10.1111/ij.s.12435>
- Gomis, M., & Davalos, A. (2014). Recanalization and Reperfusion Therapies of Acute Ischemic Stroke: What have We Learned, What are the Major Research Questions, and Where are We Headed? *Frontiers in neurology [electronic resource]*. 5, 226. doi: <http://dx.doi.org/10.3389/fneur.2014.00226>
- Hu, Y. Z., Xu, Z. Q., Lu, X. Y., & Chen, J. (2014). Efficacy and safety of thrombolysis for stroke of unknown onset time: a meta-analysis. *Journal of Thrombosis and Thrombolysis*, 38(4), 528-539. doi: <http://dx.doi.org/10.1007/s11239-014-1116-z>

- Huang, Q., Song, H. Q., Ji, X. M., Cheng, W. Y., Feng, J., Wu, J., & Ma, Q. F. (2016). Generalization of the Right Acute Stroke Prevention Strategies in Reducing in-Hospital Delays. *PLoS ONE [Electronic Resource]*, 11(5), e0154972. doi: <http://dx.doi.org/10.1371/journal.pone.0154972>
- Ip, H. L., & Liebeskind, D. S. (2014). The future of ischemic stroke: flow from prehospital neuroprotection to definitive reperfusion. *Interventional Neurology*, 2(3), 105-117. doi: <http://dx.doi.org/10.1159/000357164>
- Kim, B. J., Kang, H. G., Kim, H. J., Ahn, S. H., Kim, N. Y., Warach, S., & Kang, D. W. (2014). Magnetic resonance imaging in acute ischemic stroke treatment. *Journal of Stroke*, 16(3), 131-145. doi: <http://dx.doi.org/10.5853/jos.2014.16.3.131>
- Kurz, K. D., Ringstad, G., Odland, A., Advani, R., Farbu, E., & Kurz, M. W. (2016). Radiological imaging in acute ischaemic stroke. *European Journal of Neurology*, 23 Suppl 1, 8-17. doi: <http://dx.doi.org/10.1111/ene.12849>
- Leigh, R., & Krakauer, J. W. (2014). MRI-guided selection of patients for treatment of acute ischemic stroke. *Current Opinion in Neurology*, 27(4), 425-433. doi: <http://dx.doi.org/10.1097/WCO.0000000000000110>
- Lin, M. P., & Sanossian, N. (2015). Reperfusion therapy in the acute management of ischemic stroke. *Cardiology Clinics*, 33(1), 99-109. doi: <http://dx.doi.org/10.1016/j.ccl.2014.09.009>
- Lin, M. P., Tsivgoulis, G., Alexandrov, A. V., & Chang, J. J. (2015). Factors affecting clinical outcome in large-vessel occlusive ischemic strokes. *International Journal of Stroke*, 10(4), 479-484. doi: <http://dx.doi.org/10.1111/ij.s.12406>
- Lin, Q., Li, Z., Wei, R., Lei, Q., Liu, Y., & Cai, X. (2016). Increased Risk of Post-Thrombolysis Intracranial Hemorrhage in Acute Ischemic Stroke Patients with Leukoaraiosis: A Meta-Analysis. *PLoS ONE [Electronic Resource]*, 11(4), e0153486. doi: <http://dx.doi.org/10.1371/journal.pone.0153486>
- Mair, G., Boyd, E. V., Chappell, F. M., Von Kummer, R., Lindley, R. I., Sandercock, P., & Wardlaw, J. M. (2015). Sensitivity and specificity of the hyperdense artery sign for arterial obstruction in acute ischemic stroke. *Stroke*, 46(1), 102-107. doi: <http://dx.doi.org/10.1161/STROKEAHA.114.007036>
- Mair, G., & Wardlaw, J. M. (2014). Imaging of acute stroke prior to treatment: current practice and evolving techniques. *British Journal of Radiology*, 87(1040), 20140216. doi: <http://dx.doi.org/10.1259/bjr.20140216>
- Marshall, R. S. (2015). Progress in Intravenous Thrombolytic Therapy for Acute Stroke. *JAMA Neurology*, 72(8), 928-934. doi: <http://dx.doi.org/10.1001/jamaneurol.2015.0835>
- Medel, R., Starke, R. M., Valle-Giler, E. P., Martin-Schild, S., El Khoury, R., & Dumont, A. S. (2014). Diagnosis and treatment of arterial dissections. *Current Neurology and Neuroscience Reports*, 14(1), 419. doi: <http://dx.doi.org/10.1007/s11910-013-0419-3>
- Menon, B. K., Campbell, B. C., Levi, C., & Goyal, M. (2015). Role of imaging in current acute ischemic stroke workflow for endovascular therapy. *Stroke*, 46(6), 1453-1461. doi: <http://dx.doi.org/10.1161/STROKEAHA.115.009160>
- Meseguer, E., Labreuche, J., Guidoux, C., Lavallée, P. C., Cabrejo, L., Sirimarco, G., . . . Mazighi, M. (2014). Outcomes after stroke thrombolysis according to prior antiplatelet use. *International journal of stroke : official journal of the International Stroke Society*, 10(2), 163-169. doi: <10.1111/ij.s.12421>
- Miller, T. S., Brook, A. L., Riedel, C. H., Hirsch, J. A., & Yoo, A. J. (2014). Expanding the role of NCCT in acute stroke imaging: thrombus length measurement and its potential impact on current practice. *Journal of Neurointerventional Surgery*, 6(1), 5-6. doi: <http://dx.doi.org/10.1136/neurintsurg-2012-010531>
- Na, D. G., Sohn, C. H., & Kim, E. Y. (2015). Imaging-based management of acute ischemic stroke patients: current neuroradiological perspectives. *Korean Journal of Radiology*, 16(2), 372-390. doi: <http://dx.doi.org/10.3348/kjr.2015.16.2.372>

- Pantoni, L., Fierini, F., & Poggesi, A. (2014). Thrombolysis in acute stroke patients with cerebral small vessel disease. *Cerebrovascular Diseases*, 37(1), 5-13. doi: <http://dx.doi.org/10.1159/000356796>
- Prabhakaran, S., Ruff, I., & Bernstein, R. A. (2015). Acute stroke intervention: A systematic review. *JAMA - Journal of the American Medical Association*, 313(14), 1451-1462. doi: <http://dx.doi.org/10.1001/jama.2015.3058>
- Rimmele, D. L., & Thomalla, G. (2014). Wake-up stroke: clinical characteristics, imaging findings, and treatment option - an update. *Frontiers in neurology [electronic resource]*. 5, 35. doi: <http://dx.doi.org/10.3389/fneur.2014.00035>
- Rosso, C., & Samson, Y. (2014). The ischemic penumbra: the location rather than the volume of recovery determines outcome. *Current Opinion in Neurology*, 27(1), 35-41. doi: <http://dx.doi.org/10.1097/WCO.0000000000000047>
- Sanelli, P. C., Sykes, J. B., Ford, A. L., Lee, J. M., Vo, K. D., & Hallam, D. K. (2014). Imaging and treatment of patients with acute stroke: an evidence-based review. *AJNR: American Journal of Neuroradiology*, 35(6), 1045-1051. doi: <http://dx.doi.org/10.3174/ajnr.A3518>
- Scott Pannell, J., Santiago-Dieppa, D. R., & Khalessi, A. A. (2014). Interventional management of acute ischemic stroke: A systematic review. *Current Treatment Options in Cardiovascular Medicine*, 16 (8) (no pagination)(318). doi: <http://dx.doi.org/10.1007/s11936-014-0318-1>
- Tisserand, M., Naggar, O., Legrand, L., Mellerio, C., Edjlali, M., Lion, S., . . . Oppenheim, C. (2014). Patient "candidate" for thrombolysis: MRI is essential. *Diagnostic and Interventional Imaging*, 95(12), 1135-1144. doi: <http://dx.doi.org/10.1016/j.diii.2014.07.003>
- Tong, E., Hou, Q., Fiebach, J. B., & Wintermark, M. (2014). The role of imaging in acute ischemic stroke. *Neurosurgical Focus*, 36(1), E3. doi: <http://dx.doi.org/10.3171/2013.10.FOCUS13396>
- Tsigoulis, G., Katsanos, A. H., & Alexandrov, A. V. (2014). Reperfusion therapies of acute ischemic stroke: potentials and failures. *Frontiers in neurology [electronic resource]*. 5, 215. doi: <http://dx.doi.org/10.3389/fneur.2014.00215>
- Vagal, A. S., Khatri, P., Broderick, J. P., Tomsick, T. A., Yeatts, S. D., & Eckman, M. H. (2014). Time to angiographic reperfusion in acute ischemic stroke: decision analysis. *Stroke*, 45(12), 3625-3630. doi: <http://dx.doi.org/10.1161/STROKEAHA.114.007188>
- Wardlaw, J., M., Murray, V., Berge, E., & del Zoppo, G., J. (2014). Thrombolysis for acute ischaemic stroke. *Cochrane Database of Systematic Reviews*, 7(7), CD000213. doi: 10.1002/14651858.CD000213.pub3
- Wouters, A., Lemmens, R., Dupont, P., & Thijs, V. (2014). Wake-up stroke and stroke of unknown onset: a critical review. *Frontiers in neurology [electronic resource]*. 5, 153. doi: <http://dx.doi.org/10.3389/fneur.2014.00153>
- Zlatareva, D. K., & Traykova, N. I. (2014). Modern imaging modalities in the assessment of acute stroke. *Folia Medica (Plovdiv)*, 56(2), 81-87.