

Impact of dysphagia assessment and management on risk of stroke-associated pneumonia: A systematic review

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Table 1 – Study characteristics

Study	Design, Setting, Country	Stroke Type	Participants	Time of screen
Al-Khaled et al. (2016) ^[26]	Prospective observational, Germany	Ischemic stroke	12276, M age 73 ± 13 , Mdn NIHSS 4 (IQR 2-9). 25.1% dysphagic	55, 39, 4.7 and 1.5% screened within 3, 3 to <24, 24 to ≤ 72 , and >72h from admission
Arnold et al. (2016) ^[27]	Prospective observational, Switzerland	Ischemic stroke	570, M age 65.1 (range, 19.6-94.7), M NIHSS dysphagia 9.8 ± 7.0 vs. 4.5 ± 5.1 non-dysphagia	< 24h from admission.
Bray et al. (2016) ^[28]	Prospective observational, UK	Ischemic and haemorrhagic stroke	63650, Mdn age 77 (67-85), Mdn NIHSS 4 (IQR 2-9), 38.6% dysphagic	Mdn time < 2.9h from admission (IQR 1.3-5.7 h)
Hinchley et al. (2005) ^[29]	Prospective observational, USA	Ischemic stroke	2532, Ave. age (SD) 70.5 (14), M NIHSS 7.2 (CI 6.8-7.5) ‡	Pre oral intake in 61% (95% CI, 50-72); range at individual sites 22-100%
Hoffmeister et al. (2013) ^[33]	Retrospective observational, Chile	Ischemic stroke	677, M women age 69.8 (95% CI 68-71.6), 66.3 men years (95% CI 68.0-71.6) †‡	< 48h admission
Joundi et al. (2017) ^[30]	Prospective observational, Canada	Ischemic stroke	6677, Age 80+ y 34.0% not screened vs. 41% screened, M NIHSS 4.29 not screened vs. 7.9 screened, 47.8% dysphagic *	80.8% \leq 72h from admission
Maeshima et al. (2014) ^[37]	Prospective observational, Japan	Ischemic stroke	292, M age (SD) 69.9 ± 12.2 , 71.6% dysphagic †	1.7 ± 1.7 days from stroke onset
Odderson et al. (1995) ^[35]	Prospective observational, USA	Ischemic stroke	124, Age of dysphagic 75.2 ± 1.5 vs. 75.3 ± 1.4 non-dysphagic. 38.7% dysphagic *†	< 24h of admission
Odderson and McKenna (1993) ^[36]	Prospective observational, USA	Ischemic stroke	121, Ave. age 73.9 ± 1.4 †‡	< 24h of admission
Palli et al. (2017) ^[31]	Quasi experimental, Austria	Ischemic stroke	384, M Age 72.3 ± 13.7 , M NIHSS 3, 37.5% dysphagic.	Mdn 7h (range, 1-69) (intervention group)
Perry and McLaren (2000) ^[32]	Quasi experimental design, UK	Acute stroke	400, M age (SD) Pre-test 73.4 (12.6)/71.6 (13.3) Post-test, Mdn NIHSS Pre-test 7 (IQR 5-12)/Post-test 8 (IQR 4-13), % dysphagia 43.1% post-test vs. 41.6% pre test	< 24h from admission. 74.5% screened \leq 24h in post-test vs. 57.3% pre test, $p < 0.001$
Smithard et al. (1996) ^[34]	Prospective observational, UK	Acute stroke	121, Mdn age 79 (range, 40-93), 50% dysphagic †	Days 0-3, 7

* M (Mean)/ Mdn (Median) age not available, † NIHSS not available, ‡ % dysphagia

not available