

Gradering av anbefalinger [Helsedirektoratet 2010]:

Anbefalingene i retningslinjen er gradert ut fra styrken på dokumentasjonen, og er ikke et uttrykk for den kliniske viktighet av anbefalingen. Vurderingene er foretatt av kliniske eksperter på feltet, og det er gjort vurderinger av etiske, politiske og i noen grad også økonomiske forhold.

Grad A Basert på meget god dokumentasjon med klare resultater/liten risiko for bias (kunnskapsgrunnlag 1a og 1b) og bred enighet/konsensus i arbeidsgruppen.

Ved høy risiko for bias benyttes som oftest grad B.

Grad B Basert på dokumentasjon fra minst en god studie på nivå 2a eller 2b med lav risiko for bias eller på nivå 1 med høy risiko for bias og bred enighet/konsensus i arbeidsgruppen.

Grad C Basert på dokumentasjon fra godt utformede ikke eksperimentelle studier på nivå 3 eller studier på nivå 2 med høy risiko for bias og bred enighet/konsensus i arbeidsgruppen.

Grad D Anbefalinger basert på bred enighet/konsensus i arbeidsgruppen uten at det foreligger relevante studier av tilfredsstillende kvalitet.

Referanse	Design	Funn	Konklusjon	Anbefaling
[Ha <i>et al.</i> 2010a]	Screening for RCT [Ha <i>et al.</i> 2010b]	MUST screening ernæringsmessig risiko innen 7 d: randomisert, kontrollert, ikke blindet studie: ernæringsmessig risiko 185/343 (54%)	Underernæring – prevalens første uke 54% nivå 2a	Screene for ernæringsmessig risiko: Grad A
[Martineau <i>et al.</i> 2005]	Retrospective cohort, n=73 (62% av eligible)	Undernutrition (SGA < 48h) 19% on admission, associated with longer length of stay, increased complications	Underernæring – prevalens innkomst 19%, for øvrig ikke brukbar p.g.a. design nivå 2b	
[Gariballa <i>et al.</i> 1998b]	Prospective cohort, n=201, alder gj.sn. 77,9	Marked and significant deterioration in all measures of nutritional status (BMI, hudfold triceps, omkrets arm, S-albumin < 48 timer etter innkomst) within 4 wks of hospitalization. Low S-albumin strong and independent predictor death. 31% BMI <20 ved innkomst, gj.sn. BMI går ned under oppholdet (4 uker, P=0.006)	Underernæring – 31% BMI <20 ved innkomst nivå 2b	
			Underernæring – forverres under sykehusoppholdet nivå 2b	
[Shen <i>et al.</i> 2011]	Acute Stroke registry (Taiwan), n=483	Malnutrition (BMI, kolesterol, albumin) independent risk factor for poorer functional outcomes (BI) at 6 mo (OR 2.6 (13.-5) for BI < 75)	NRS – outcome BI nivå 2b	
[Yoo <i>et al.</i> 2008]	Prospect. Cohort, n=131 (Korea)	5-parameter assess. nutr. risk: undernutr. At 1 wk indept. Predicted poor 3 mo outcome (mRS)	NRS – outcome mRS nivå 2b	
FOOD [2003]	Review FOOD*, RCT 15 countries, n=2955	Undernourished (subjektiv vurdering, n=275/2955) more likely pneumonia, infections, GI bleeding. Mortality adj. OR 1.82, dead or mRanking ≥3 (=dependent) adj. OR 1.52	Underernæring – dårligere outcome (dead and dead or dependent 6 mo) nivå 1b	

[Milne <i>et al.</i> 2006]	Metaanalyse RCT varierende kvalitet – FOOD data (på ikke underernærte pasienter) dominerer	Underernærte eldre med andre diagnoser enn slag, 74% sykehus, som fikk næringsdrikker hadde OR 0,66 for død	Ernæringstilskudd – ikke brukbar p.g.a. design	Ernæringstilskudd til pasienter med ernæringsmessig risiko: Grad B
[Gariballa <i>et al.</i> 1998a]	RCT, N=42	Næringsdrikke til underernærte uten svelgproblemer: økt inntak kalorier 723 kcal/d, protein 21 g/d, "trend" (P=0.13) redusert 3 mnd dødelighet	Ernæringstilskudd – økt inntak kalorier og protein nivå 2b	
[Ha, Hauge, Spenning, and Iversen 2010b]	RCT, n=124	Pat. at nutr. risk (MUST < 7d) +/- individ. treatment plan: smaller % weight loss ≥ 5% at 3 mo (P=0.005)	Ernæringstilskudd – redusert vekttap 3 mnd nivå 2b	
[Prosser-Loose and Paterson 2006]	FOOD*, RCT 15 countries, n=2955	3 FOOD Trials showed no reduction in death or poor outcome at 6 mo. with routine oral protein-energy supplementation of stroke patients who were primarily well nourished upon admission to the hospital. NG tube > PEG early	Ernæringstilskudd - ikke indisert hos pasienter uten ernæringsmessig risiko nivå 1b	Nasogastrisk sonde innen 3 dager til pasienter som ikke kan ernæres oralt Grad A
[Dennis <i>et al.</i> 2005]	FOOD*, multinational RCT, n=859/321	NG sonde <3 d, > 7 d (n=859): redusert død etter 6 mnd (5.8% (95% CI: -0.8 to 12.5, p=0.09), men flere "poor outcome" i gruppen NG sonde <3d (s. 770), no excess pneumonia (s. 769) PEG (n=321, 10x larger than previous) vs NG: does not support early PEG	Sonde – starte første 3 dager nivå 1b PEG – ikke indisert første ukene nivå 1b	
[Norton <i>et al.</i> 1996]	RCT, n=30	NG sonde vs. PEG, inklusjon 14 dager etter slaget	Sonde – ikke aktuelt (etter akutfasen)	
[Smithard <i>et al.</i> 1997]	Prospective cohort (n=121)	dysphagia => normal swallowing function (51% admission => 27% one week, 17% four weeks)	Svelgtest – prevalens dysfagi over tid nivå 2b	Svelgtest før pasienten får drikke eller spise: Grad A
[Martino <i>et al.</i> 2005]	Syst review 1966-2005, stort sett små studier, ulike svelgtester	Incr. pneumonia pat. Dysphagia, inc. dysphagia screen: 37-45% (< assess. < instrumental)	Svelgtest – prevalens dysfagi nivå 2b (review)	
[Hinchey <i>et al.</i> 2005]	Observational study, n=2532, 15 centres, ulike svelgtester	Formal dysphagia screening protocols prevent pneumonia (formal protocol n=742, 2.4% pneumonia; informal protocol n=1790, 5.4% pneumonia);	Svelgtest - pneumoni nivå 2a	
			Svelgtest - pneumoni nivå 2b	

[Lakshminarayan <i>et al.</i> 2010]	Paul Coverdell National Acute Stroke Registry, n=18017	pneumonia rate was doubled in 4509 unscreened patients compared with 8406 patients who were screened and passed (OR 2.2; CI 1.7 to 2.7), 38% screened failed	Svelgtest – pneumoni nivå 2a	
[Sellars <i>et al.</i> 2007]	Prospective cohort (n=412)	Failed water swallow test indept. Predictor pneumonia	Svelgtest - pneumoni nivå 2b	
[Yeh <i>et al.</i> 2011]	Prospective study ICU 74 pre, 102 post introduction swallow screen	Reduced stroke-assoc. pneumonia (p=0.05) , post introduction swallow screen	Svelgtest – pneumoni nivå 2b	
[Ickenstein <i>et al.</i> 2010]	Observational study, n=114	3-step protocol (nurse screening, SLT assessment, endoscopy) reduced pneumonia (9 => 2.8%) and in-hospital mortality (7.4 => 4.2%).	Svelgtest –pneumoni nivå 3 Svelgtest –dødelighet under sykehusoppholdet nivå 3	
[Middleton <i>et al.</i> 2011]	Single-blind cluster RCT 19 acute stroke units, n=1696	Proactive management of fever, hyperglycaemia, and swallowing dysfunction resulted in better 90 day outcome (dead or mRanking ≥2 (=dependent): p=0.002; BI (n.s.)	Svelgtest (+ fever/ hyperglycaemia) - outcome dead or dependent 90 days nivå 2a	
[Foley <i>et al.</i> 2008]	Syst. Review 1966-2007	C current research neither supports nor opposes current clinical dysphagia rehabilitation practices, and that these should be continued until high-quality research emerges.	Swallowing therapy – nivå 4	Logeped-behandling av pasienter med dysphagi Grad D

* RCT 15 countries, enrolment up to 30 days post admission, no data on proportion eligible patients enrolled, only one nutritional assessment, not standardised across centres, no weight (?), patients for whom clinician recommended nutritional supplements were excluded, endpoint at 6 months

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