

**Supplementary Table 7.** Summary of evidence for replacement of gastrostomy tube

Study	Country	Study period	Study design	Timing of replacement	No. of participants	No. of total replacements	Tube type	Method of replacement	No. of routine or short interval replacements	No. of on-demand or long interval replacements	Main outcomes	Comparison (routine vs. on-demand)
Nishiwaki et al. (2011) <sup>86</sup>	Japan	2000–2010	Retrospective	Routine replacement (4–8 mo) or on-demand	317	1,092	Internal bloster	Percutaneous traction	1,070	22	13 Complications associated with replacement (1.2%): fistular disruption: 8 (0.7%), hemorrhage: 4 (0.4%); device breakage: 1 (0.1%)	No differences in complications between routine and on-demand replacement (data not presented)
Lee et al. (2013) <sup>89</sup>	Korea	2008–2012	Retrospective	Routine placement or on-demand	330	N/A	Internal bloster	Percutaneous endoscopic (176)	264	66 (37: PEG site infection, 14: leakage)	1) Immediate complication 16 (4.8%): laceration 13 (3.9%); bleeding 2 (0.1%), perforation 1 (0.03%). 2) Late complications 8 (2.4%): infection 5 (1.5%), leakage 3 (0.9%)	Short interval of replacement ( $\leq 6$ mo) shows higher mechanical complication than long interval ( $> 6$ months): 11 (6.3%) vs. 3 (1.9%)
Jo et al. (2014) <sup>88</sup>	Korea	2009–2014	Retrospective	On-demand	72 (30: displacement, 22: obstruction, 10: leakage, 8: PEG site infection)	N/A	Internal bloster	N/A	57 (early replacement)	15 (late replacement)	The 'early exchange' group had a lower BMI than 'late exchange' group (19.7 $\pm$ 3.57 vs. 22.4 $\pm$ 3.87). Reason of replacement was not different between two groups.	Replacement associated complications were not analyzed between the two groups (Reason of replacement is analyzed).
Lisotti et al. (2019) <sup>87</sup>	Italy	2016–2018	Prospective cohort	Routine placement or on-demand	99	234	Balloon type	N/A	203	31	Among 203 elective tube placements, 197 (97.0%) have been performed at home. No adverse events were reported.	Comparison between routine vs. on-demand replacement was not presented.

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**Supplementary Table 7.** Continued

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Sbeit et al. (2021) <sup>30</sup>	Israel	Not presented	Retrospective	On-demand	48 (leak: 20, obstruction: 10, dislodgement: 18)	N/A	Bumper type or balloon type	N/A	22	26	No difference of PEG-related long-term complication (leak: 8/22 vs. 12/26, $p=0.057$ ; obstruction: 5/22 vs. 5/26, $p=0.72$ ; dislodgement: 9/22 vs. 9/26, $p=0.76$ ) between replacement within 6 vs. beyond 6 months.	Replacement associated complications are not presented between two groups (Reason of replacement is analyzed).

N/A, not applicable; PEG, percutaneous endoscopic gastrostomy; BMI, body mass index.