Bilaga 5 till rapport

Intraoperativ kolangiografi vid kolecystektomi, rapport nr 292 (2018)

Bilaga 5 Included health economic articles

Bilaga 5: Included health economical articles comparing intraoperative cholangiography with selective or no cholangiography.

Author **Year** **Reference** **Country**	**Study design** **Population** **Setting** **Perspective**	**Intervention (I) versus control (C)**	**Incremental cost**	**Incremental effect**	**ICER**	**Study quality and transferability*** **Further information** **Comments**
Flum et al 2003 (12) USA	Decision analytic model Patients who underwent LC with IOC or no IOC in Washington State between 1991-1998. Hospital Health care payer perspective	I: 10 000 LCs with IOC C: 10 000 LCs without IOC	Total incremental costs not presented Cost of IOC $122 Repair of BDI $13 612 All costs reported in USD 2000	Rate of BDI for cases performed with IOC = 19 per 10 000 cases Rate of BDI for cases performed without IOC = 33 per 10 000 cases	Routine use of IOC cost more than $390 000 per life saved and approximately $13 900 per life year saved. The cost per CBD injury avoided with IOC use is $87 143.	Moderate study quality Moderate transferability to Sweden
Van de Sande et al 2003 (43) Belgium	Retrospective register, all Belgian hospitals in 1997 LC and secondary BDI treatments performed on patients aged >10 years Hospital Health care billings	I: 10 595 LCs C:1 033 OCs	n/a All costs reported in EUR 1997 Cost uneventful operations: LC 1 721 EUR OC 2 924 EUR Cost BDI 15 335 EUR	n/a BDI rate: Overall 0.58% LC 0.37% OC 2.81%	n/a	Moderate study quality Moderate transferability to Sweden Patients in the OC-group were statistically significant older (age 64.4 vs 56.1 years) and had more severe diseases than the LC-group Of the 26 patients with a delayed repair of BDI after LC (76,9%), an IOC was not performed during initial cholecystectomy

Rystedt et al. 2017 (2) Sweden	Evaluation of direct and indirect costs of cholecystectomy-related BDIs and a cost-effectiveness analysis All patients with a BDI registered in the national quality register GallRiks between 2007 and 2011 were included Hospital Societal perspective (health care costs and productivity changes)	I: 12 000 LCs with IOC (equals 100 % of total LCs) C: 4 800 LCs with on-demand IOC (equals 40 % of total LCs)	Incremental cost (including treatment costs, loss of production and IOC cost) 1 098 246 EUR All costs reported in EUR (converted from Swedish krona by using the average exchange rate over three years, 2013–2015)	Incremental effect (QALY) 22 QALY	Routine use of IOC costs 49 920 EUR per QALY gained	Low study quality (with regards to the economic evaluation) High transferability to Sweden Assumptions in the model not transparently presented Lack sensitivity analyses regarding important variables

Reference numbers refers to the main document

* Study quality is a combined assessment of the quality of the study from a clinical as well as an economic perspective (32)

LC = Laparoscopic cholecystectomy, OC = Open Cholecystectomy, BDI = Bile Duct Injury, IOC = Intraoperative Cholangiography

References

2. Rystedt JML, Tingstedt B, Montgomery F, Montgomery AK. Routine intraoperative cholangiography during cholecystectomy is a cost-effective approach when analysing the cost of iatrogenic bile duct injuries. HPB (Oxford). 2017;19:881-888.

12. Flum DR, Flowers C, Veenstra DL. A cost-effectiveness analysis of intraoperative cholangiography in the prevention of bile duct injury during laparoscopic cholecystectomy. J Am Coll Surg. 2003;196:385-93.

43. Van de Sande S, Bossens M, Parmentier Y, Gigot JF. National survey on cholecystectomy related bile duct injury--public health and financial aspects in Belgian hospitals--1997. Acta Chir Belgica. 2003;103:168-80.