



## Bilaga till rapport

Åtgärder vid sten i de djupa gallgångarna Rapport 297 (2019)

## Bilaga 2 Exkluderade studier

## **Articles excluded based on PICO or limitations**

Management of patients with common bile duct stones	Reason for exclusion
Alexakis N, Connor S. Meta-analysis of one- vs. two-stage laparoscopic/endoscopic management of common bile duct stones. HPB 2012;14(4):254-9.	Mixed interventions
Al-Temimi MH, Kim EG, Chandrasekaran B, Franz V, Trujillo CN, Mousa A, et al. Laparoscopic common bile duct exploration versus endoscopic retrograde cholangiopancreatography for choledocholithiasis found at time of laparoscopic cholecystectomy: Analysis of a large integrated health care system database. American journal of surgery. 2017;214(6):1075-9.	Wrong study design
Ashraf I, Ashraf S, Hinds A, Romana B, Siddique S, Arif M, et al. One-step versus two-step management of choledocholithiasis: A systematic review and metaanalysis. American Journal of Gastroenterology. 2014;109:S666.	Abstract
Bansal VK, Misra MC, Garg P, Prabhu M. A prospective randomized trial comparing two-stage versus single-stage management of patients with gallstone disease and common bile duct stones. Surgical endoscopy. 2010;24(8):1986-9.	Intervention not relevant
Bansal VK, Misra MC, Rajan K, Kilambi R, Kumar S, Krishna A, et al. Single-stage laparoscopic common bile duct exploration and cholecystectomy versus two-stage endoscopic stone extraction followed by laparoscopic cholecystectomy for patients with concomitant gallbladder stones and common bile duct stones: a randomized controlled trial. Surgical endoscopy. 2014;28(3):875-85.	Intervention not relevant
Burstow MJ, Yunus RM, Hossain MB, Khan S, Memon B, Memon MA. Meta-Analysis of Early Endoscopic Retrograde Cholangiopancreatography (ERCP) +/- Endoscopic Sphincterotomy (ES) Versus Conservative Management for Gallstone Pancreatitis (GSP). Surgical laparoscopy, endoscopy & percutaneous techniques. 2015;25(3):185-203.	Research question not relevant
Campbell-Lloyd AJ, Martin DJ, Martin IJ. Long-term outcomes after laparoscopic bile duct exploration: a 5-year follow up of 150 consecutive patients. ANZ journal of surgery. 2008;78(6):492-4.	Wrong study design
Chavalitdhamrong D, Donepudi S, Pu L, Draganov PV. Uncommon and rarely reported adverse events of endoscopic retrograde cholangiopancreatography. Digestive endoscopy: official journal of the Japan Gastroenterological Endoscopy Society. 2014;26(1):15-22.	Research question not relevant
Colton JB, Curran CC. Quality indicators, including complications, of ERCP in a community setting: a prospective study. Gastrointestinal endoscopy. 2009;70(3):457-67.	Wrong study design
Dasari BV, Tan CJ, Gurusamy KS, Martin DJ, Kirk G, McKie L, et al. Surgical versus endoscopic treatment of bile duct stones. The Cochrane database of systematic reviews. 2013(12):Cd003327.	Systematic review overlaps with later reviews
Ding G, Cai W, Qin M. Single-stage vs. two-stage management for concomitant gallstones and common bile duct stones: a prospective randomized trial with long-term follow-up. Journal of gastrointestinal surgery: official journal of the Society for Surgery of the Alimentary Tract. 2014;18(5):947-51.	Intervention not relevant
Du J, Jin J, Hu W, Wang Z, Zhao H. Comparison of three surgical patterns for cholecysto-choledocholithiasis. National Medical Journal of China. 2017;97(4):276-9.	Chinese language
El Nakeeb A, El Geidie A, El Hanafy E, Atef E, Askar W, Sultan AM, et al. Management and Outcome of Borderline Common Bile Duct with Stones: A Prospective Randomized Study. Journal of laparoendoscopic & advanced surgical techniques Part A. 2016;26(3):161-7.	Research question not relevant
El Nakeeb A, Ezzet H, Askar W, El Hanafy E, Hamdy E, Atef E, et al. Early Versus Late Cholecystectomy After Clearance of Common Bile Duct Stones by Endoscopic Retrograde Cholangiopancreatography: A Prospective Randomized Study. Surgical laparoscopy, endoscopy & percutaneous techniques. 2016;26(3):202-7.	Research question not relevant

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El Nakeeb A, Sultan AM, Hamdy E, El Hanafy E, Atef E, Salah T, et al. Intraoperative endoscopic retrograde cholangio-pancreatography: a useful tool in the hands of the hepatobiliary surgeon. World journal of gastroenterology. 2015;21(2):609-15.	Research question not relevant
ElGeidie AA. Single-session minimally invasive management of common bile duct stones. World journal of gastroenterology. 2014;20(41):15144-52.	Research question not relevant
Elgeidie A, Elshobary M, Naeem Y, Elhemaly M, Elebeidy G. Laparoscopic common bile duct exploration versus intraoperative sphincterotomy for management of common bile duct stones: A prospective randomized trial. Surgical Endoscopy and Other Interventional Techniques [Internet]. 2013; 27:[S280]	Abstract
Enestvedt BK, Tofani C, Lee DY, Abraham M, Shah P, Chandrasekhara V, et al. Endoscopic retrograde cholangiopancreatography in the pediatric population is safe and efficacious. Journal of pediatric gastroenterology and nutrition. 2013;57(5):649-54.	Research question not relevant
Enochsson L, Swahn F, Arnelo U, Nilsson M, Lohr M, Persson G. Nationwide, population-based data from 11,074 ERCP procedures from the Swedish Registry for Gallstone Surgery and ERCP. Gastrointestinal endoscopy. 2010;72(6):1175-84, 84.e1-3.	Wrong study design
Enochsson L, Thulin A, Osterberg J, Sandblom G, Persson G. The Swedish Registry of Gallstone Surgery and Endoscopic Retrograde Cholangiopancreatography (GallRiks): A nationwide registry for quality assurance of gallstone surgery. JAMA surgery. 2013;148(5):471-8.	Research question not relevant
Gao YC, Chen J, Qin Q, Chen H, Wang W, Zhao J, et al. Efficacy and safety of laparoscopic bile duct exploration versus endoscopic sphincterotomy for concomitant gallstones and common bile duct stones: A meta-analysis of randomized controlled trials. Medicine. 2017;96(37):e7925.	Systematic review, mixed interventions
Giefer MJ, Kozarek RA. Technical outcomes and complications of pediatric ERCP. Surgical endoscopy. 2015;29(12):3543-50.	Research question not relevant
Glomsaker T, Soreide K, Hoff G, Aabakken L, Soreide JA. Contemporary use of endoscopic retrograde cholangiopancreatography (ERCP): a Norwegian prospective, multicenter study. Scandinavian journal of gastroenterology. 2011;46(9):1144-51.	Wrong study design
Grubnik V, Tkachenko O, Ilyashenko V. Single-stage versus two-stage treatment of common bile duct stones in the country with low medical care budjet: A randomized controlled trial. Surgical Endoscopy and Other Interventional Techniques [Internet]. 2016; 30:[S40 p.].	Abstract
Grubnik V, Tkachenko A, Vorotyntseva K. Comparative prospective randomized trial: Laparoscopic versus open common bile duct exploration. Wideochirurgia I Inne Techniki Maloinwazyjne. 2011;6(2):84-91.	Research question not relevant
Han JY, Jeong S, Lee DH. Percutaneous papillary large balloon dilation during percutaneous cholangioscopic lithotripsy for the treatment of large bile-duct stones: a feasibility study. Journal of Korean medical science. 2015;30(3):278-82.	Research question not relevant
Hu WD, Chen CB, Zhao WW, Gu YY. Second laparoscopic surgery vs endoscopic retrograde cholangiopancreatography for treatment of recurrent common bile duct stones: A randomized study. World Chinese Journal of Digestology. 2015;23(11):1834-9.	Research question not relevant
Ishiwatari H, Kawakami H, Hisai H, Yane K, Onodera M, Eto K, et al. Balloon catheter versus basket catheter for endoscopic bile duct stone extraction: a multicenter randomized trial. Endoscopy. 2016;48(4):350-7.	Research question not relevant
Jones M, Johnson M, Samourjian E, Schlauch K, Ozobia N. ERCP and laparoscopic cholecystectomy in a combined (one-step) procedure: a random comparison to the standard (two-step) procedure. Surgical endoscopy. 2013;27(6):1907-12.	Research question not relevant
Kenny R, Richardson J, McGlone ER, Reddy M, Khan OA. Laparoscopic common bile duct exploration versus pre or post-operative ERCP for common bile duct stones in patients undergoing cholecystectomy: is there any difference? International journal of surgery (London, England). 2014;12(9):989-93.	Mixed interventions

Kim SB, Kim KH, Kim TN. Comparison of Outcomes and Complications of Endoscopic Common Bile Duct Stone Removal Between Asymptomatic and Symptomatic Patients. Digestive diseases and sciences. 2016;61(4):1172-7.	Wrong study design
Kostrzewska M, Baniukiewicz A, Wroblewski E, Laszewicz W, Swidnicka-Siergiejko A, Piotrowska-Staworko G, et al. Complications of endoscopic retrograde cholangiopancreatography (ERCP) and their risk factors. Advances in medical sciences. 2011;56(1):6-12.	Research question not relevant
Li KY, Shi CX, Tang KL, Huang JZ, Zhang DL. Advantages of laparoscopic common bile duct exploration in common bile duct stones. Wiener klinische Wochenschrift. 2018;130(3-4):100-4.	Wrong study design
Li MK, Tang CN, Lai EC. Managing concomitant gallbladder stones and common bile duct stones in the laparoscopic era: a systematic review. Asian journal of endoscopic surgery. 2011;4(2):53-8.	Research question not relevant
Liu F, Bai X, Duan GF, Tian WH, Li ZS, Song B. Comparative quality of life study between endoscopic sphincterotomy and surgical choledochotomy. World journal of gastroenterology. 2014;20(25):8237-43.	Research question not relevant
Liu Y, Su P, Lin Y, Lin S, Xiao K, Chen P, et al. Endoscopic sphincterotomy plus balloon dilation versus endoscopic sphincterotomy for choledocholithiasis: a meta-analysis (Provisional abstract). Journal of gastroenterology and hepatology [Internet]. 2013; 28(6):[937-45 pp.].	Abstract
Liverani A, Muroni M, Santi F, Neri T, Anastasio G, Moretti M, et al. One-step laparoscopic and endoscopic treatment of gallbladder and common bile duct stones: Our experience of the last 9 years in a retrospective study. American Surgeon. 2013;79(12):1243-7.	Research question not relevant
Lu J, Cheng Y, Xiong XZ, Lin YX, Wu SJ, Cheng NS. Two-stage vs single-stage management for concomitant gallstones and common bile duct stones. World journal of gastroenterology. 2012;18(24):3156-66.	Mixed interventions
Lu J, Xiong XZ, Cheng Y, Lin YX, Zhou RX, You Z, et al. One-stage versus two-stage management for concomitant gallbladder stones and common bile duct stones in patients with obstructive jaundice. American Surgeon. 2013;79(11):1142-8.	Wrong study design
Lv F, Zhang S, Ji M, Wang Y, Li P, Han W. Single-stage management with combined tri-endoscopic approach for concomitant cholecystolithiasis and choledocholithiasis. Surgical endoscopy. 2016;30(12):5615-20.	Research question not relevant
Lv S, Fang Z, Wang A, Yang J, Zhu Y. One-Step LC and ERCP Treatment of 40 Cases with Cholelithiasis Complicated with Common Bile Duct Stones. Hepato-gastroenterology. 2015;62(139):570-2.	Research question not relevant
Lynn AP, Chong G, Thomson A. Endoscopic retrograde cholangiopancreatography in the treatment of intraoperatively demonstrated choledocholithiasis. Annals of the Royal College of Surgeons of England. 2014;96(1):45-8.	Research question not relevant
Madhoun MF, Wani S, Hong S, Tierney WM, Maple JT. Endoscopic papillary large balloon dilation reduces the need for mechanical lithotripsy in patients with large bile duct stones: a systematic review and meta-analysis. Diagnostic and therapeutic endoscopy. 2014;2014:309618.	Research question not relevant
Nagaraja V, Eslick GD, Cox MR. Systematic review and meta-analysis of minimally invasive techniques for the management of cholecysto-choledocholithiasis. Journal of hepato-biliary-pancreatic sciences. 2014;21(12):896-901.	Meta-analysis of two RCT, both RCT were used in the meta-analysis in this systematic review,
Nathanson LK, O'Rourke NA, Martin IJ, Fielding GA, Cowen AE, Roberts RK, et al. Postoperative ERCP versus laparoscopic choledochotomy for clearance of selected bile duct calculi: a randomized trial.  Annals of surgery. 2005;242(2):188-92	Wrong study design
Noble H, Tranter S, Chesworth T, Norton S, Thompson M. A randomized, clinical trial to compare endoscopic sphincterotomy and subsequent laparoscopic cholecystectomy with primary laparoscopic bile duct exploration during cholecystectomy in higher risk patients with choledocholithiasis. Journal of laparoendoscopic & advanced surgical techniques Part A. 2009;19(6):713-20	Wrong study design

Ozawa N, Yasuda I, Doi S, Iwashita T, Shimizu M, Mukai T, et al. Prospective randomized study of endoscopic biliary stone extraction using either a basket or a balloon catheter: The BasketBall study. Journal of gastroenterology. 2016.	Research question not relevant
Pang L, Zhang Y, Wang Y, Kong J. Transcystic versus traditional laparoscopic common bile duct exploration: its advantages and a meta-analysis. Surgical endoscopy. 2018;32(11):4363-76.	Systematic review with meta-analysis, overlaps Feng Q, et al. PloS one. 2016;11(9):e0162885.
Prasson P, Bai X, Zhang Q, Liang T. One-stage laparoendoscopic procedure versus two-stage procedure in the management for gallstone disease and biliary duct calculi: a systemic review and meta-analysis. Surgical endoscopy. 2016;30(8):3582-90.	Systematic review, mixed interventions
Rajan K, Bansal V, Misra M, Kilambi R, Kumar S, Krishna A, et al. Single stage laparoscopic common bile duct exploration and cholecystectomy versus two stage endoscopic stone extraction followed by laparoscopic cholecystectomy for patients with concomitant gallbladder stones and common bile duct stones. Indian journal of gastroenterology [Internet]. 2013; 32(1 suppl. 1):[A3-a4 pp.].	Abstract
Reinders JS, Goud A, Timmer R, Kruyt PM, Witteman BJ, Smakman N, et al. Early laparoscopic cholecystectomy improves outcomes after endoscopic sphincterotomy for choledochocystolithiasis. Gastroenterology. 2010;138(7):2315-20.	Research question not relevant
Reinders JS, Gouma DJ, Ubbink DT, van Ramshorst B, Boerma D. Transcystic or transductal stone extraction during single-stage treatment of choledochocystolithiasis: a systematic review. World journal of surgery. 2014;38(9):2403-11.	Systematic review overlaps with Feng Q et al., PloS one. 2016;11(9):e0162885.
Ricci C, Pagano N, Taffurelli G, Pacilio CA, Migliori M, Bazzoli F, et al. Comparison of Efficacy and Safety of 4 Combinations of Laparoscopic and Intraoperative Techniques for Management of Gallstone Disease with Biliary Duct Calculi: A Systematic Review and Network Meta-analysis. JAMA surgery. 2018;153(7):e181167.	Systematic review do not add data to the meta-analysis in this report
Rogers SJ, Cello JP, Horn JK, Siperstein AE, Schecter WP, Campbell AR, et al. Prospective randomized trial of LC+LCBDE vs ERCP/S+LC for common bile duct stone disease. Archives of surgery (Chicago, III: 1960). 2010;145(1):28-33.	Intervention not relevant
Rosenmuller MH, Thoren Ornberg M, Myrnas T, Lundberg O, Nilsson E, Haapamaki MM. Expertise-based randomized clinical trial of laparoscopic versus small-incision open cholecystectomy. The British journal of surgery. 2013;100(7):886-94.	Research question not relevant
Rouquette O, Bommelaer G, Abergel A, Poincloux L. Large balloon dilation post endoscopic sphincterotomy in removal of difficult common bile duct stones: a literature review. World journal of gastroenterology. 2014;20(24):7760-6.	Research question not relevant
Sahoo MR, Kumar AT, Patnaik A. Randomised study on single stage laparo-endoscopic rendezvous (intra-operative ERCP) procedure versus two stage approach (Pre-operative ERCP followed by laparoscopic cholecystectomy) for the management of cholelithiasis with choledocholithiasis. Journal of minimal access surgery. 2014;10(3):139-43.	Research question not relevant
Sakai Y, Tsuyuguchi T, Kawaguchi Y, Hirata N, Nakaji S, Kitamura K, et al. Endoscopic papillary large balloon dilation for removal of bile duct stones. World journal of gastroenterology. 2014;20(45):17148-54.	Research question not relevant
Sandzen B, Haapamaki MM, Nilsson E, Stenlund HC, Oman M. Treatment of common bile duct stones in Sweden 1989-2006: an observational nationwide study of a paradigm shift. World journal of surgery. 2012;36(9):2146-53.	Wrong study design
Schreurs WH, Juttmann JR, Stuifbergen WN, Oostvogel HJ, van Vroonhoven TJ. Management of common bile duct stones: selective endoscopic retrograde cholangiography and endoscopic sphincterotomy: short- and long-term results. Surgical endoscopy. 2002;16(7):1068-72.	Research question not relevant

Intervention not relevant
Research question not relevant
Research question not relevant
Wrong study design
Research question not relevant
Intervention not relevant
Guide-lines
Research question not relevant

Management of common bile duct stones in patients with gallstone pancreatitis and cholangitis	Reason for exclusion
Chang A, Pausawasdi N, Charatcharoenwitthaya P, Prachayakul V, Sriprayoon T, Kaosombatwattana U, et al. A randomized, controlled trial of aggressive fluid hydration for the prevention of post-ERCP	Research question not relevant
pancreatitis. Gastroenterology [Internet]. 2016; 150(4 suppl. 1):[S209 p.]. Available from: http://onlinelibrary.wiley.com/o/cochrane/clcentral/articles/734/CN-01160734/frame.html.	

Coutinho LMA, Bernardo WM, Rocha RS, Marinho FR, Delgado A, Moura ETH, et al. Early Endoscopic Retrograde Cholangiopancreatography Versus Conservative Treatment in Patients with Acute Biliary Pancreatitis: Systematic Review and Meta-analysis of Randomized Controlled Trials. Pancreas. 2018;47(4):444-53.	Systematic review Do not add any data to Burstow et al Surgical laparoscopy, endoscopy & percutaneous techniques. 2015;25(3):185-203.
de Quadros Onófrio F, Lima JCP, Watte G, Lehmen RL, Oba D, Camargo G, et al. Prophylaxis of	Research question not
pancreatitis with intravenous ketoprofen in a consecutive population of ERCP patients: a randomized	relevant
double-blind placebo-controlled trial. Surgical Endoscopy and Other Interventional Techniques.	
2017;31(5):2317-24.	
Harinwan K, Opuchar K. Appropriate time for biliary drainage in mild to moderate acute cholangitis.	Research question not
(preliminary data of a prospective randomized trial). Gastrointestinal endoscopy. 2016;83(5):AB620.	relevant
Li Y, Zhu B, Li D, Ren Y, Wang Y, Gong K, et al. Efficacy of laparoscopic common bile duct exploration	Research question not
combined with laparoscopic cholecystectomy for treatment of common bile duct stones with mild to	relevant
moderate acute cholangitis. World Chinese Journal of Digestology. 2015;23(22):3614-9.	
Navaneethan U, Njei B, Hasan MK, Konjeti VR, Varadarajulu S, Hawes R. Timing of ERCP and outcomes	Abstract
of patients with acute cholangitis and choledocholithiasis: A nationwide population-based study.	
Gastrointestinal endoscopy. 2015;81(5):AB354.	
Niu HG, Gao RZ, Zhu FY, Zhang GF. Clinical effects of duodenoscopy, laparoscopy, and choledochoscopy	Research question not
combined with cholecystectomy and common bile duct exploration in treatment of acute obstructive	relevant
suppurative cholangitis. World Chinese Journal of Digestology. 2014;22(36):5688-92.	
Sato J, Nakahara K, Morita R, Morita N, Suetani K, Michikawa Y, et al. Efficacy and Safety of	Research question not
Single-Session Endoscopic Stone Removal for Acute Cholangitis Associated with Choledocholithiasis.	relevant
Canadian Journal of Gastroenterology and Hepatology. 2018;2018.	
Sun WC, Chan HH, Lai KH, Tsai TJ, Lin HS, Lin KH, et al. The efficacy of endoscopic papillary balloon	Research question not
dilation for patients with acute biliary pancreatitis. Gastroenterology Research and Practice.	relevant
2015;2015.	
Yin B-H. Effect of operation timing on efficacy of laparoscopic cholecystectomy combined with	Chinese language
endoscopic sphincterotomy for patients with mild acute biliary pancreatitis. [Chinese]. World Chinese	
Journal of Digestology [Internet]. 2015; 23(12):[1980-3 pp.]	

Technique of papillotomy in endoscopic retrograde cholangiopancreatography in patients with common bile duct stones	Reason for exclusion
Bang BW, Lee TH, Song TJ, Han JH, Choi HJ, Moon JH, et al. Twenty-Second versus Sixty-Second Dilation Duration in Endoscopic Papillary Balloon Dilation for the Treatment of Small Common Bile Duct Stones: A Prospective Randomized Controlled Multicenter Trial. Clinical endoscopy. 2015;48(1):59-65.	Research question not relevant
Bang B, Lee T, Song T, Han J, Choi H, Moon J, et al. Twenty-Second versus Sixty-Second Dilation Duration in Endoscopic Papillary Balloon Dilation for the Treatment of Small Common Bile Duct Stones: a Prospective Randomized Controlled Multicenter Trial. Clinical endoscopy [Internet]. 2017; 48(1):[59-65 pp.].	Research question not relevant
Bang B, Lee T, Song T, Han J-H, Choi H, Kwon C-I, et al. 20-second versus 60-second dilation duration in endoscopic papillary balloon dilation for treatment of small bile duct stones: Prospective randomized controlled multicenter trial. Gastrointestinal endoscopy [Internet]. 2014; 79(5 suppl. 1):[Ab242 p.].	Research question not relevant
Cheon YK, Lee TY, Kim SN, Shim CS. Impact of endoscopic papillary large-balloon dilation on sphincter of Oddi function: a prospective randomized study. Gastrointestinal endoscopy. 2017;85(4):782-90.e1.	Research question not relevant
Cheon Y, Lee T, Shim C. Endoscopic papillary large balloon dilation with or without small endoscopic sphincterotomy do not preserve sphincter of oddi function after large bile duct stones management: A prospective randomized study. Gastrointestinal endoscopy [Internet]. 2014; 79(5 suppl. 1):[Ab164 p.].	Abstract

Systematic review – overlaps with the meta-analysis in this report
Research question not relevant
Systematic review – overlaps with the meta-analysis in this report
Research question not relevant
Research question not relevant
Research question not relevant
Systematic review Overlap with de Clemente et al., World J Gastrointest Endosc 2018;10:130-144.
Research question not relevant
Wrong study design
Research question not relevant
Systematic review – overlap with the meta-analysis in this report
Systematic review – overlap with the meta-analysis in this report

Natsui M, Honma T, Genda T, Nakadaira H. Effects of endoscopic papillary balloon dilation and endoscopic sphincterotomy on bacterial contamination of the biliary tract. European journal of gastroenterology & hepatology. 2011;23(9):818-24.	Research question not relevant
Okuno M, Iwashita T, Yoshida K, Maruta A, Uemura S, Nakashima M, et al. Significance of Endoscopic Sphincterotomy Preceding Endoscopic Papillary Large Balloon Dilation in the Management of Bile Duct Stones. Digestive diseases and sciences. 2016;61(2):597-602.	Research question not relevant
Omuta S, Maetani I, Saito M, Shigoka H, Gon K, Tokuhisa J, et al. Is endoscopic papillary large balloon dilatation without endoscopic sphincterotomy effective? World journal of gastroenterology. 2015;21(23):7289-96.	Research question not relevant
Park JS, Kim TN, Kim KH. Endoscopic papillary large balloon dilation for treatment of large bile duct stones does not increase the risk of post-procedure pancreatitis. Digestive diseases and sciences. 2014;59(12):3092-8.	Research question not relevant
Park H, Cheon Y, Chung H, Kim J, Lee T, Shim C. Sphincter of Oddi function does not maintain after endoscopic papillary large balloon dilation regardless of small endoscopic sphincterotomy: A prospective randomized study. Neurogastroenterology and motility [Internet]. 2015; 27:[90 p.].	Research question not relevant
Paspatis GA, Paraskeva K, Vardas E, Papastergiou V, Tavernaraki A, Fragaki M, et al. Long-term recurrence of bile duct stones after endoscopic papillary large balloon dilation with sphincterotomy: 4-year extended follow-up of a randomized trial. Surgical endoscopy. 2016.	Research question not relevant
Paspatis GA, Paraskeva K, Vardas E, Papastergiou V, Tavernaraki A, Fragaki M, et al. Long-term recurrence of bile duct stones after endoscopic papillary large balloon dilation with sphincterotomy: 4-year extended follow-up of a randomized trial. Surgical endoscopy. 2017;31(2):650-5.	Wrong study design
Rouquette O, Bommelaer G, Abergel A, Poincloux L. Large balloon dilation post endoscopic sphincterotomy in removal of difficult common bile duct stones: a literature review. World journal of gastroenterology. 2014;20(24):7760-6.	Research question not relevant
Rustagi T, Njei B. Endoscopic papillary large balloon dilation versus endoscopic sphincterotomy for common bile duct stones removal: A comparative meta-analysis of randomized control trials. Gastrointestinal endoscopy. 2013;77(5):AB313-AB4.	Abstract
Schreurs WH, Juttmann JR, Stuifbergen WN, Oostvogel HJ, van Vroonhoven TJ. Management of common bile duct stones: selective endoscopic retrograde cholangiography and endoscopic sphincterotomy: short- and long-term results. Surgical endoscopy. 2002;16(7):1068-72.	Wrong study design
Shavakhi A, Minakari M, Ardestani MH, Sadeghizadeh A, Shavakhi S. A comparative study of one minute versus five seconds endoscopic biliary balloon dilation after small sphincterotomy in choleducolithiasis. Advanced biomedical research. 2015;4:28.	Research question not relevant
Stefanidis G, Viazis N, Pleskow D, Manolakopoulos S, Theocharis L, Christodoulou C, et al. Large balloon dilation vs. mechanical lithotripsy for the management of large bile duct stones: a prospective randomized study. The American journal of gastroenterology. 2011;106(2):278-85.	Research question not relevant
Sun JJ, Ju H, Mao T, Sun XG, Kong XJ, Zhao QX, et al. Endoscopic papillary large balloon dilation after endoscopic sphincterotomy for treatment of common bile duct stones: Effects of different dilation durations. World Chinese Journal of Digestology. 2014;22(11):1597-601.	Research question not relevant
Tanaka Y, Sato K, Tsuchida H, Mizuide M, Yasuoka H, Ishida K, et al. A prospective randomized controlled study of endoscopic sphincterotomy with the Endocut mode or conventional blended cut mode. Journal of clinical gastroenterology. 2015;49(2):127-31.	Research question not relevant
Teoh AY, Cheung FK, Chiu PW, Wong SK, Ng EK, Lau JY. Combined sphincterotomy and balloon dilation (ESBD) versus standard sphincterotomy (ES) in retrieval of large bile duct stones. A randomized controlled trial. Gastrointestinal endoscopy. 2011;73(4):AB116-AB7.	Abstract of Teoh et al. Gastroenterology. 2013;144(2):341-5.e1

Tonozuka R, Itoi T, Sofuni A, Itokawa F, Kurihara T, Tsuchiya T, et al. Efficacy and safety of endoscopic papillary large balloon dilation for large bile duct stones in elderly patients. Digestive diseases and sciences. 2014;59(9):2299-307.	Research question not relevant
Tsujino T, Kawabe T, Isayama H, Sasaki T, Kogure H, Togawa O, et al. Efficacy and safety of low-pressured and short-time dilation in endoscopic papillary balloon dilation for bile duct stone removal. Journal of gastroenterology and hepatology. 2008;23(6):867-71.	Research question not relevant
Tsujino T, Kawabe T, Komatsu Y, Yoshida H, Isayama H, Sasaki T, et al. Endoscopic papillary balloon dilation for bile duct stone: immediate and long-term outcomes in 1000 patients. Clinical gastroenterology and hepatology: the official clinical practice journal of the American Gastroenterological Association. 2007;5(1):130-7.	Wrong study type
Tringali A, Baron TH. Endoscopic papillary balloon dilation vs endoscopic sphincterotomy: An update meta-analysis. Digestive and Liver Disease. 2015;47:e98.	Research question not relevant
Ustundag Y, Ersoz G, Saritas U. Analysis of adverse events associated with endoscopic papillary large-balloon dilation. Digestive diseases and sciences. 2013;58(8):2426-7.	Research question not relevant
Xi LL, Gao HL, Shalayiadang P, Yao P. Endoscopic sphincterotomy vs endoscopic papillary balloon dilation for retrieval of common bile duct stones. World Chinese Journal of Digestology. 2015;23(32):5222-7.	Wrong study design
Xu L, Kyaw MH, Tse YK, Lau JY. Endoscopic sphincterotomy with large balloon dilation versus endoscopic sphincterotomy for bile duct stones: a systematic review and meta-analysis. BioMed research international. 2015;2015:673103.	Systematic review overlaps with de Clemente et al., World J Gastrointest Endosc 2018;10:130-144.
Yang XM, Hu B. Endoscopic sphincterotomy plus large-balloon dilation vs endoscopic sphincterotomy for choledocholithiasis: a meta-analysis. World journal of gastroenterology. 2013;19(48):9453-60.	Systematic review overlaps with de Clemente et al., World J Gastrointest Endosc 2018;10:130-144.
Yang XM, Hu B, Pan YM, Gao DJ, Wang TT, Wu J, et al. Endoscopic papillary large-balloon dilation following limited sphincterotomy for the removal of refractory bile duct stones: experience of 169 cases in a single Chinese center. Journal of digestive diseases. 2013;14(3):125-31.	Research question not relevant
Yasuda I, Fujita N, Maguchi H, Hasebe O, Igarashi Y, Murakami A, et al. Long-term outcomes after endoscopic sphincterotomy versus endoscopic papillary balloon dilation for bile duct stones. Gastrointestinal endoscopy. 2010;72(6):1185-91.	Wrong study design
Yasuda I, Ozawa N, Doi S, Mukai T, Nakashima M, Iwashita T, et al. Prospective randomized study of endoscopic biliary stone extraction using either a basket or balloon catheter: The basketball study. United European Gastroenterology Journal. 2015;3(5):A69.	Research question not relevant
Yuan Y, Gao J, Zang J, Zhang C, Yang X, Chen X, et al. A Randomized, Clinical Trial Involving Different Surgical Methods Affecting the Sphincter of Oddi in Patients With Choledocholithiasis. Surgical laparoscopy, endoscopy & percutaneous techniques. 2016;26(2):124-7.	Research question not relevant
Zhao HC, He L, Zhou DC, Geng XP, Pan FM. Meta-analysis comparison of endoscopic papillary balloon dilatation and endoscopic sphincteropapillotomy. World journal of gastroenterology. 2013;19(24):3883-91.	Systematic review – overlap with the meta-analysis in this report

Active or conservative management of small common bile duct stones	Reason for exclusion
Bang BW, Lee TH, Song TJ, Han JH, Choi HJ, Moon JH, et al. Twenty-Second versus Sixty-Second Dilation	Research question not
Duration in Endoscopic Papillary Balloon Dilation for the Treatment of Small Common Bile Duct Stones:	relevant
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Duensing RA, Williams RA, Collins JC, Wilson SE. Common bile duct stone characteristics: correlation	Research question not
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Godoy Santin C, Saez Binelli J, Me Rivas RM, Briceño Valenzuela E, Diaz Mendez C, Viñuela Fawaz E, et	Abstract
al. Choledocholithiasis: A prospective study of spontaneous choledochal stone migration in	
symptomatic patients. HPB. 2016;18:e88-e9.	
Karvonen J, Kairisto V, Gronroos JM. The diameter of common bile duct does not predict the cause of	Research question not
extrahepatic cholestasis. Surgical laparoscopy, endoscopy & percutaneous techniques.	relevant
2009;19(1):25-8.	

Cholecystectomy or not in elderly and frail patients with common bile duct stones	Reason for exclusion
Ali M, Ward G, Staley D, Duerksen DR. A retrospective study of the safety and efficacy of ERCP in octogenarians. Digestive diseases and sciences. 2011;56(2):586-90.	Research question not relevant
Bignell M, Dearing M, Hindmarsh A, Rhodes M. ERCP and endoscopic sphincterotomy (ES): a safe and definitive management of gallstone pancreatitis with the gallbladder left in situ. Journal of gastrointestinal surgery: official journal of the Society for Surgery of the Alimentary Tract. 2011;15(12):2205-10.	Research question not relevant
Chong VH, Yim HB, Lim CC. Endoscopic retrograde cholangiopancreatography in the elderly: outcomes, safety and complications. Singapore medical journal. 2005;46(11):621-6.	Research question not relevant
Costi R, DiMauro D, Mazzeo A, Boselli AS, Contini S, Violi V, et al. Routine laparoscopic cholecystectomy after endoscopic sphincterotomy for choledocholithiasis in octogenarians: is it worth the risk? Surgical endoscopy. 2007;21(1):41-7.	Research question not relevant
Grönroos JM. Clinical success of ERCP procedures in nonagenarian patients with bile duct stones. Minimally Invasive Therapy and Allied Technologies. 2011;20(3):146-9.	Research question not relevant
Han SJ, Lee TH, Kang BI, Choi HJ, Lee YN, Cha SW, et al. Efficacy and Safety of Therapeutic Endoscopic Retrograde Cholangiopancreatography in the Elderly Over 80 Years. Digestive diseases and sciences. 2016;61(7):2094-101.	Research question not relevant
Harris HW, Davis BR, Vitale GC. Cholecystectomy after endoscopic sphincterotomy for common bile duct stones: is surgery necessary? Surgical innovation. 2005;12(3):187-94.	Narrative review
Heo J, Jung M, Cho C-M, Jeon S, Lee J. Randomised clinical trial: Should cholecystectomy be needed after endoscopic sphincterotomy for bile-duct stones? Gastroenterology [Internet]. 2014; 146(5 suppl. 1):[S-883 pp.]. Available from: http://onlinelibrary.wiley.com/o/cochrane/clcentral/articles/265/CN-01060265/frame.html.	Abstract to Heo et al Surgical endoscopy. 2015;29(6):1574-9 2015
Hoem D, Viste A, Horn A, Gislason H, Sondenaa K. Cholecystectomy improves long-term success after endoscopic treatment of CBD stones. Hepato-gastroenterology. 2006;53(71):655-9.	Wrong study design
Khan MA, Khan Z, Tombazzi CR, Gadiparthi C, Lee W, Wilcox CM. Role of Cholecystectomy After Endoscopic Sphincterotomy in the Management of Choledocholithiasis in High-risk Patients: A Systematic Review and Meta-Analysis. J Clin Gastroenterol. 2018;52(7):579-89.	Systematic review with meta-analysis – do not add data to the meta-analysis done in the present report
Kwon YH, Cho CM, Jung MK, Kim SG, Yoon YK. Risk factors of open converted cholecystectomy for cholelithiasis after endoscopic removal of choledocholithiasis. Digestive diseases and sciences. 2015;60(2):550-6.	Research question not relevant

Mahmood S, Krentz J, Kong C, Wang N, Kaltsidis H, Iqbal J. Management of Common Bile Duct (CBD) stones in patients unfit for cholecystectomy, does elective stent change programme protect against further biliary complications after clearance of cbd stones in this group? Gut Conference: british society of gastroenterology annual general meeting 2016 United Kingdom Conference start: 20160620 Conference end: 20160623 [Internet]. 2017; 65:[A237-a8 pp.].	Research question not relevant
Mauro DD, Faraci R, Mariani L, Cudazzo E, Costi R. Rendezvous technique for cholecystocholedochal lithiasis in octogenarians: Is it as effective as in younger patients, or should endoscopic sphincterotomy followed by laparoscopic cholecystectomy be preferred? Journal of Laparoendoscopic and Advanced Surgical Techniques. 2014;24(1):13-21.	Research question not relevant
Meine GC, Baron TH. Managing risks related to ERCP in elderly patients with difficult bile duct stones. Digestive diseases and sciences. 2014;59(9):2028-9.	Research question not relevant
Nakai Y, Isayama H, Tsujino T, Hamada T, Kogure H, Takahara N, et al. Cholecystectomy after endoscopic papillary balloon dilation for bile duct stones reduced late biliary complications: a propensity score-based cohort analysis. Surgical endoscopy. 2016;30(7):3014-20.	Research question not relevant
Noble H, Tranter S, Chesworth T, Norton S, Thompson M. A randomized, clinical trial to compare endoscopic sphincterotomy and subsequent laparoscopic cholecystectomy with primary laparoscopic bile duct exploration during cholecystectomy in higher risk patients with choledocholithiasis. Journal of laparoendoscopic & advanced surgical techniques Part A. 2009;19(6):713-20.	Research question not relevant
Tonozuka R, Itoi T, Sofuni A, Itokawa F, Kurihara T, Tsuchiya T, et al. Efficacy and safety of endoscopic papillary large balloon dilation for large bile duct stones in elderly patients. Digestive diseases and sciences. 2014;59(9):2299-307.	Research question not relevant
Zulli C, Gargiulo L, Napoli G, Labianca O, Riccio G, Tammaro S, et al. Endoscopic papillary large balloon dilation for the removal of large stones in elderly patients (80 years old or over). Digestive and Liver Disease. 2016;48:e218.	Research question not relevant

Health economic studies	Reason for exclusion
Bansal VK, Garg P, Misra MC, Kilambi R, Rajeshwari S. Cost effectiveness analysis and comparison of single stage vs two stage management of patients with concomitant gall stone disease and common bile duct stones - A randomized controlled trial. Surgical Endoscopy and Other Interventional Techniques. 2012;26:S205.	Type of publication
Chen F, Chen S, Shen Q, Duan L, Dalong S. Endoscopic papillary large balloon dilation or endoscopic sphincterotomy in extraction of large common bile duct stones: Optimal management strategy using decision analysis techniques. Gastrointestinal Endoscopy. 2013;77(5):AB240.	Type of publication
Chen F, Chen S, Shen Q, Duan L, Sun D. Endoscopic sphincterotomy plus endoscopic papillary large balloon dilation or endoscopic sphincterotomy extraction of large common bile duct stones: A decision analysis. Journal of Interventional Gastroenterology. 2014;4(4):105-12.	Full text publication not available
Faisal M, Gough V, Hanif F, Nassar A. Laparoscopic cholecystectomy and common bile duct exploration (LC and LCBDE) as primary management of biliary stones in elderly patients is a safe, reliable and cost-effective treatment strategy. Surgical Endoscopy and Other Interventional Techniques. 2012;26:S180-S1.	Type of publication
Feng Q, Huang Y, Wang K, Yuan R, Xiong X, Wu L. Laparoscopic Transcystic Common Bile Duct Exploration: Advantages over Laparoscopic Choledochotomy. PLoS One. 2016;11(9):e0162885.	Study type
Fisher DA. Watchful waiting after endoscopic removal of common bile duct stones: cheaper and better? Am J Gastroenterol. 2006;101(4):753-4.	Type of publication
Gilsdorf D, Henrichsen JL, Liljestrand K, Veale K, Staheli A, Hunt MM, et al. Single-stage management of common bile duct stones with laparoscopic common duct exploration and cholecystectomy is safe and cost effective in a large multi-hospital health care system. Journal of the American College of Surgeons. 2015;221(4):S77.	Type of publication
Grubnik VV, Tkachenko OI, Ilyashenko VV. Single-stage versus two-stage treatment of common bile duct stones in the country with low medical care budjet: A randomized controlled trial. Surgical Endoscopy and Other Interventional Techniques. 2016;30:S40.	Type of publication

Karsenti D, Coron E, Vanbiervliet G, Privat J, Kull E, Bichard P, et al. Complete sphincterotomy plus large balloon dilatation of sphincter of oddi versus endoscopic sphincterotomy for large bile duct stones removal: A large prospective multicenter randomized study. Gastrointestinal Endoscopy. 2016;83(5):AB133.	Type of publication
Liu JG, Wang YJ, Shu GM, Lou C, Zhang J, Du Z. Laparoscopic versus endoscopic management of choledocholithiasis in patients undergoing laparoscopic cholecystectomy: a meta-analysis. J Laparoendosc Adv Surg Tech A. 2014;24(5):287-94.	Study type
Patel VD, Stobaugh DJ, Meiselman M, Ehrenpreis ED. Analysis of hospital charges and clinical outcomes in patients receiving inpatient intervention for choledocholithiasis. Gastroenterology. 2014;146(5):S-387.	Type of publication
Rajan K, Bansal VK, Misra MC, Kilambi R, Kumar S, Krishna A, et al. Single stage laparoscopic common bile duct exploration and cholecystectomy versus two stage endoscopic stone extraction followed by laparoscopic cholecystectomy for patients with concomitant gallbladder stones and common bile duct stones. Indian Journal of Gastroenterology. 2013;32(1):A3-A4.	Full text publication not available
Redwan A, Omar MA. Common bile duct clearance of stones by open surgery, laparoscopic surgery, and endoscopic approaches (comparative study). Digestive Endoscopy. 2017;29:149-50.	Type of publication
Zeng S, Li GH. The evaluation of treatment therapy of choledocholithiasis about 1072 patients in department of surgery. Journal of Digestive Diseases. 2014;15:44-5.	Type of publication