

Appendix F: Excluded studies

F.1 Excluded studies question 1

Reference	Reason for exclusion
1. . Abdominal symptoms and gallstone disease: An epidemiological investigation. Hepatology 1989;9(6):856-60.	Study population does not meet inclusion criteria
2. . Acute abdominal emergencies associated with pregnancy. Clinical Obstetrics & Gynecology 2002;45(2):553-61.	Not primary research
3. . Assessment of indicators for predicting choledocholithiasis before laparoscopic cholecystectomy. ANN.SAUDI MED. 1998;18(6):511-13.	Unsuitable analysis
4. . Clinical manifestations and impact of gallstone disease. Am.J.Surg. 1993;165(4):405-09.	Study conducted before 1993
5. . Gall-bladder dyspepsia.	Unsuitable analysis
6. . Non-cardiac chest pain: a variant on Murphy's sign. MED.J.AUST. 2001;175(7):391.	Not primary research
7. . Predicting severe pancreatitis. ARCH.SURG. 2001;136(10):1210.	Not primary research
8. . Prevalence of gallstone disease in an Italian adult female population. Rome group for the epidemiology and prevention of cholelithiasis (GREPCO).	Study population does not meet inclusion criteria
9. . Symptoms of gallstone disease in a Swedish population. European Journal of Gastroenterology & Hepatology 1995;7(12):n. pag..	Study population does not meet inclusion criteria
10. . The acute abdomen during pregnancy. Clinical Obstetrics & Gynecology 2002;45(2):405-13.	Not primary research
11. . The differential diagnosis of coronary artery disease and gastrointestinal disorders. Am.J.Cardiol. 1963;12():354-57.	Not primary research
12. Abro,A.H. & Haider,I.Z.. Helicobacter pylori infection in patients with calculous cholecystitis: a hospital based study. Journal of Ayub Medical College, Abbottabad: JAMC 2011;23(1):30-33.	Unsuitable analysis
13. Abu-Eshy,S.A., Mahfouz,A.A., Badr,A., El Gamal,M.N., Al-Shehri,M.Y., Salati,M.I.. Prevalence and risk factors of gallstone disease in a high altitude Saudi population. East.Mediterr.Health J. 2007;13(4):794-802.	Study population does not meet inclusion criteria
14. Alexakis,N., Lombard,M., Raraty,M., Ghaneh,P., Smart,H.L., Gilmore,I., et al. When is pancreatitis considered to be of biliary origin and what are the implications for management? Pancreatology 2007;7(2-3):131-41.	Not primary research
15. Alexakis,N.. Algorithm for the diagnosis and treatment of acute biliary pancreatitis. Scandinavian Journal of Surgery: SJS 2005;94(2):124-29.	Not primary research

Reference	Reason for exclusion
16. Attili,A.F. & Pazzi,P.. Prevalence of previously undiagnosed gallstones in a population with multiple risk factors. <i>Digestive Diseases & Sciences</i> 1995;40(8):1770-74.	Study population does not meet inclusion criteria
17. Attili,A.F., Carulli,N., Roda,E., Barbara,B., Capocaccia,L., Menotti,A., et al. Epidemiology of gallstone disease in Italy: prevalence data of the Multicenter Italian Study on Cholelithiasis (M.I.COL.). <i>American Journal of Epidemiology</i> 1995;141(2):158-65.	Study population does not meet inclusion criteria
18. Bainton,D., Davies,G.T., Evans,K.T.. Gallbladder disease. Prevalence in a South Wales industrial town. <i>New Engl.J.Med.</i> 1976;294(21):1147-49.	Unsuitable analysis
19. Barbara,L., Sama,C., Labate,A.M.M, Taroni,F., Rusticali,A.G., Festi,D.. A population study on the prevalence of gallstone disease. The Sirmione study.	Study population does not meet inclusion criteria
20. Barthet,M., Affriat,C., Bernard,J.P., Berthezene,P., Dagorn,J.C.. Is biliary lithiasis associated with pancreatographic changes? <i>Gut</i> 1995;36(5):761-65.	Unsuitable analysis
21. Berger,M.Y., Olde Hartman,T.C., van der Velden,J.. Is biliary pain exclusively related to gallbladder stones? A controlled prospective study. <i>Br.J.Gen.Pract.</i> 2004;54(505):574-79.	Unsuitable analysis
22. Berger,M.Y., van der Velden,J.J., Lijmer,J.G., de,Kort H., Prins,A.. Abdominal symptoms: do they predict gallstones? A systematic review. <i>SCAND.J.GASTROENTEROL.</i> 2000;35(1):70-76.	Sytematic review; included studies checked against protocol and individually appraised if met inclusion criteria
23. Berhane,T., Vetrhus,M., Hausken,T., Olafsson,S.. Pain attacks in non-complicated and complicated gallstone disease have a characteristic pattern and are accompanied by dyspepsia in most patients: the results of a prospective study. <i>SCAND.J.GASTROENTEROL.</i> 2006;41(1):93-101.	Unsuitable analysis
24. Besselink,M.G., Venneman,N.G., Go,P.M., Broeders,I.A., Siersema,P.D., Gooszen,H.G.. Is complicated gallstone disease preceded by biliary colic? <i>Journal of Gastrointestinal Surgery</i> 2009;13(2):312-17.	Unsuitable analysis
25. Blamey,S.L., Imrie,C.W., O'Neill,J., Gilmour,W.H.. Prognostic factors in acute pancreatitis. <i>Gut</i> 1984;25(12):1340-46.	Inappropriate prognostic factors
26. Blamey,S.L., Osborne,D.H., Gilmour,W.H., O'Neill,J., Carter,D.C.. The early identification of patients with gallstone associated pancreatitis using clinical and biochemical factors only. <i>ANN.SURG.</i> 1983;198(5):574-78.	Inappropriate prognostic factors
27. Bond,L.R., Hatty,S.R., Horn,M.E., Dick,M., Meire,H.B.. Gall stones in sickle cell disease in the United Kingdom. <i>British Medical Journal Clinical Research Ed</i> 1987;295(6592):234-36.	Study population does not meet inclusion criteria
28. Bose,S.M., Mazumdar,A., Prakash,V.S., Kocher,R., Katariya,S.. Evaluation of the predictors of choledocholithiasis: comparative analysis of clinical, biochemical, radiological, radionuclear, and intraoperative parameters. <i>Surg.Today</i> 2001;31(2):117-22.	Inappropriate prognostic factors
29. Bouchier,I.A. & Rhodes,K.. A study of symptomatic and 'silent'	Unsuitable analysis

Reference	Reason for exclusion
gallstone. SCAND.J.GASTROENTEROL. 1968;3(3):299-304.	
30. Brand,B. & Lerche,L.. Symptomatic or asymptomatic gallstone disease: is the gallbladder motility the clue? Hepato-Gastroenterology 2002;49(47):1208-12.	Unsuitable analysis
31. Bree,R.L., Ralls,P.W., Balfe,D.M., DiSantis,D.J., Glick,S.N., Levine,M.S., et al. Evaluation of patients with acute right upper quadrant pain. American College of Radiology. ACR Appropriateness Criteria. Radiology 2000;215():Suppl-7.	Not available from the British Library
32. Buonocore,E. & O'Donnell,J.. Evaluation of acute right upper quadrant pain. CLEVELAND CLIN.Q. 1983;50(2):247-49.	Unsuitable analysis
33. Capocaccia,L., Giunchi,G., Pocchiari,F., Ricci,G., Angelico,F., Angelico,M., et al. The epidemiology of gallstone disease in Rome, Italy. Part I. Prevalence data in men. Hepatology 1988;8(4):904-06.	Study population does not meet inclusion criteria
34. Caroli-Bosc,F.-X., Deveau,C., Harris,A., Delabre,B., Peten,E.P., Hastier,P., et al. Prevalence of cholelithiasis: Results of an epidemiologic investigation in Vidauban, southeast France. Dig.Dis.Sci. 1999;44(7):1322-29.	Insufficient data reported
35. Chang,L., Lo,S.K., Stabile,B.E., Lewis,R.J.. Gallstone pancreatitis: a prospective study on the incidence of cholangitis and clinical predictors of retained common bile duct stones. AM.J.GASTROENTEROL. 1998;93(4):527-31.	Inappropriate prognostic factors
36. Cohen,M.E., Slezak,L., Wells,C.K., Andersen,D.K.. Prediction of bile duct stones and complications in gallstone pancreatitis using early laboratory trends. AM.J.GASTROENTEROL. 2001;96(12):3305-11.	Unsuitable analysis
37. Diehl,A.K. & Sugarek,N.J.. Clinical evaluation for gallstone disease: usefulness of symptoms and signs in diagnosis. AM.J.MED. 1990;89(1):29-33.	Unsuitable analysis
38. Festi,D., Dormi,A., Capodicasa,S., Staniscia,T., Attili,A.F., Loria,P., et al. Incidence of gallstone disease in Italy: results from a multicenter, population-based Italian study (the MICOL project). World J.Gastroenterol. 2008;14(34):5282-89.	Study conducted before 1993
39. Festi,D., Sottilli,S., Colecchia,A., Attili,A., Mazzella,G., Roda,E.. Clinical manifestations of gallstone disease: evidence from the multicenter Italian study on cholelithiasis (MICOL). Hepatology 1999;30(4):839-46.	Study population does not meet inclusion criteria
40. Funnell,I.C., Bornman,P.C., Weakley,S.P., Terblanche,J.. Obesity: an important prognostic factor in acute pancreatitis. BR.J.SURG. 1993;80(4):484-86.	Unsuitable analysis
41. Galatola,G., Jazrawi,R.P., Kupfer,R.M., Maudgal,D.P., Lanzini,A.. Value of different symptom complexes for clinical diagnosis of gallstones in outpatients presenting with abdominal pain. Eur.J.Gastroenterol.Hepatol. 1991;3(8):623-25.	Unsuitable analysis
42. Gao,Y.J., Li,Y.Q., Wang,Q., Li,S.L., Li,G.Q., Ma,J., et al. Analysis of clinical features of acute pancreatitis in Shandong Province, China. Journal of Gastroenterology & Hepatology 2007;22(3):340-44.	Unsuitable analysis

Reference	Reason for exclusion
43. Gilani,S.N., Bass,G., Leader,F.. Collins' sign: validation of a clinical sign in cholelithiasis. IR.J.MED.SCI. 2009;178(4):397-400.	Unsuitable analysis
44. Glambek,I. & Arnesjo,B.. Correlation between gallstones and abdominal symptoms in a random population. Results from a screening study. SCAND.J.GASTROENTEROL. 1989;24(3):277-81.	Study population does not meet inclusion criteria
45. Halonen,K.I., Leppaniemi,A.K., Puolakkainen,P.A., Lundin,J.E., Kemppainen,E.A., Hietaranta,A.J.. Severe acute pancreatitis: prognostic factors in 270 consecutive patients. Pancreas 2000;21(3):266-71.	Relates to factors predicting mortality, not factors predicting gallstones
46. Heaton,K.W., Braddon,F.E.M., Montford,R.A, Hughes,A.O. Symptomatic and silent gallstones in the community.	Unsuitable analysis
47. Hinkel,C.L.. Correlation of symptoms, age, sex, and habitus with cholecystographic findings in 1000 consecutive examinations.	Unsuitable analysis
48. Horrocks,J.C.. Clinical presentation of patients with 'dyspepsia'. Detailed symptomatic study of 360 patients. Gut 1978;19(1):19-26.	Unsuitable analysis
49. Javidi,D.. Cholecystitis and its risk factors among patients undergoing coronary artery bypass grafting. J.Med.Sci.(Pakistan) 2007;7(2):233-37.	Study population does not meet inclusion criteria
50. Kang,J.Y. & Tay,H.H.. Chronic upper abdominal pain: site and radiation in various structural and functional disorders and the effect of various foods. Gut 1992;33(6):743-48.	Unsuitable analysis
51. Koch,P.J & Donaldson,R.M. A survey of food intolerances in hospitalized patients.	Unsuitable analysis
52. Kraag,N. & Thijs,C.. Dyspepsia--how noisy are gallstones? A meta-analysis of epidemiologic studies of biliary pain, dyspeptic symptoms, and food intolerance. SCAND.J.GASTROENTEROL. 1995;30(5):411-21.	Sytematic review; included studies checked against protocol and individually appraised if met inclusion criteria
53. Lee,J.K., Ryu,J.K., Park,J.K., Yoon,W.J., Lee,S.H., Lee,K.H., Kim,Y.T.. Risk factors of acute cholecystitis after endoscopic common bile duct stone removal. World J.Gastroenterol. 2006;12(6):956-60.	Inappropriate prognostic factors
54. Levy,P., Boruchowicz,A., Hastier,P., Pariente,A., Thevenot,T., Frossard,J.L., et al. Diagnostic criteria in predicting a biliary origin of acute pancreatitis in the era of endoscopic ultrasound: multicentre prospective evaluation of 213 patients. Pancreatology 2005;5(4-5):450-56.	Inappropriate prognostic factors
55. Ludvigsson,J.F. & Montgomery,S.M.. Risk of pancreatitis in 14,000 individuals with celiac disease. Clinical Gastroenterology & Hepatology 2007;5(11):1347-53.	Study population does not meet inclusion criteria
56. Maggi,A., Solenghi,D., Panzeri,A., Borroni,G., Cazzaniga,M., Sangiovanni,A., De,Fazio C.. Prevalence and incidence of cholelithiasis in patients with liver cirrhosis. Italian Journal of Gastroenterology & Hepatology 1997;29(4):330-35.	Not available from the British Library
57. Mills,P. & Joseph,A.E.. Total abdominal and pelvic ultrasound: incidental findings and a comparison between outpatient and	Unsuitable analysis

Reference	Reason for exclusion
general practice referrals in 1000 cases.	
58. Moonka,R. & Stiens,S.A.. Atypical gastrointestinal symptoms are not associated with gallstones in patients with spinal cord injury. <i>Archives of Physical Medicine & Rehabilitation</i> 2000;81(8):1085-89.	Inappropriate method for diagnosing gallstones
59. Moonka,R., Stiens,S.A., Eubank,W.B.. The presentation of gallstones and results of biliary surgery in a spinal cord injured population. <i>Am.J.Surg.</i> 1999;178(3):246-50.	Inappropriate prognostic factors
60. Muszynski,J., Sieminska,J., Zagorowicz,E., Gornicka,B., Bogdanska,M., Terebinski,S.. Comparison of clinical features of cholecystolithiasis and functional dyspepsia. <i>Med.Sci.Monit.</i> 2000;6(2):330-35.	Unsuitable analysis
61. Persson,G., Sloth,M., Skold,S.. Evaluation of anamnestic data in patients referred for oral cholecystography. <i>SCAND.J.GASTROENTEROL.</i> 1989;24(5):550-56.	Unsuitable analysis
62. Portincasa,P., Moschetta,A., Petruzzelli,M., Palasciano,G., Di,Ciaula A.. Gallstone disease: Symptoms and diagnosis of gallbladder stones. <i>Best Practice & Research in Clinical Gastroenterology</i> 2006;20(6):1017-29.	Not primary research
63. Sharara,A.I., Mansour,N.M., El-Hakam,M., Ghaith,O.. Duration of pain is correlated with elevation in liver function tests in patients with symptomatic choledocholithiasis. <i>Clinical Gastroenterology & Hepatology</i> 2010;8(12):1077-82.	Unsuitable analysis
64. Shiozawa,S., Tsuchiya,A., Kim,D.H., Usui,T., Masuda,T., Kubota,K., et al. Useful predictive factors of common bile duct stones prior to laparoscopic cholecystectomy for gallstones. <i>Hepato-Gastroenterology</i> 2005;52(66):1662-65.	Inappropriate prognostic factors
65. Taylor,T.V., Rimmer,S., Holt,S., Jeacock,J.. Sex differences in gallstone pancreatitis. <i>ANN.SURG.</i> 1991;214(6):667-70.	Unsuitable analysis
66. Tenner,S. & Dubner,H.. Predicting gallstone pancreatitis with laboratory parameters: a meta-analysis. <i>AM.J.GASTROENTEROL.</i> 1994;89(10):1863-66.	Sytematic review; included studies checked against protocol and individually appraised if met inclusion criteria
67. Thijs,C.. Abdominal symptoms and food intolerance related to gallstones. <i>J.Clin.Gastroenterol.</i> 1998;27(3):223-31.	Study conducted before 1993
68. Tola,V.B., Chamberlain,S., Kostyk,S.K.. Symptomatic gallstones in patients with spinal cord injury. <i>Journal of Gastrointestinal Surgery</i> 2000;4(6):642-47.	Unsuitable analysis
69. Tritapepe,R., Piro,D., Annoni,F.. Predictive factors for cholelithiasis complications. <i>Panminerva Medica</i> 1999;41(3):243-46.	Excluded by GDG as it doesn't address the review question.
70. Tsujino,T., Sugita,R., Yoshida,H., Yagioka,H., Kogure,H., Sasaki,T., et al. Risk factors for acute suppurative cholangitis caused by bile duct stones. <i>Eur.J.Gastroenterol.Hepatol.</i> 2007;19(7):585-88.	Inappropriate prognostic factors
71. Urushihara,H., Taketsuna,M., Liu,Y., Oda,E., Nakamura,M.,	Study population does not

Reference	Reason for exclusion
Nishiuma,S.. Increased Risk of Acute Pancreatitis in Patients with Type 2 Diabetes: An Observational Study Using a Japanese Hospital Database. PLoS ONE 2012;7(12):n. pag..	meet inclusion criteria
72. Wilbur,R.S. Incidence of gallbladder disease in 'normal' men.	Study population does not meet inclusion criteria
73. Yadav,D.. Trends in the epidemiology of the first attack of acute pancreatitis: a systematic review. Pancreas 2006;33(4):323-30.	Sytematic review; included studies checked against protocol and individually appraised if met inclusion criteria

F.2 Excluded studies question 2

Reference	Reason for exclusion
1. . Acute acalculous cholecystitis: sensitivity in detection using technetium-99m iminodiacetic acid cholescintigraphy. Radiology 1986;160(1):33-38.	Pre 1993
2. . Approach of suspected common bile duct stones: endoscopic ultrasonography. Acta Gastroenterologica Belgica 2000;63(3):295-98.	Not primary research
3. . Assessment of indicators for predicting choledocholithiasis before laparoscopic cholecystectomy. Ann.Saudi Med. 1998;18(6):511-13.	Unsuitable analysis
4. . Evaluation of abdominal ultrasound performed by the gastroenterologist in the office. J.Clin.Gastroenterol. 2011;45(5):405-09.	Unacceptable reference standard used in study
5. . Further observations on the usefulness of the sonographic Murphy sign in the evaluation of suspected acute cholecystitis. J.Clin.Ultrasound 1995;23(3):169-72.	Unacceptable reference standard used in study
6. . Is preoperative evaluation of the biliary tree necessary in uncomplicated gallstone disease? Results of a randomized trial. Scandinavian Journal of Surgery: SJS 2005;94(1):31-33.	Unacceptable reference standard used in study
7. . MRCP and ERCP in the diagnosis of common bile duct stones. Gastrointest.Endosc. 2002;56(6:Suppl):Suppl-82.	Not primary research
8. . Prospective analysis of a scoring system to predict choledocholithiasis (Br J Surg 2000; 87: 1176-81). BR.J.SURG. 2001;88(2):313-14.	Abstract only
9. . Sonographic diagnosis of primary carcinoma of the gallbladder. Summary of one year's examinations. DIAGN.IMAGING 1981;50(4):197-200.	Pre 1993
10. . Suspected choledocholithiasis: endoscopic ultrasound or magnetic resonance cholangio-pancreatography? A systematic review. European Journal of Gastroenterology & Hepatology 2007;19(11):1007-11.	Systematic review; included studies checked against protocol and individually appraised if eligible for inclusion
11. . The clinical value of ultrasound in biliary tract and pancreatic disease. ANN.R.COLL.SURG.ENGL. 1979;61(6):448-51.	Pre 1993
12. . Ultrasound of the gall bladder: experience in a district hospital. British Medical Journal Clinical Research Ed 1981;282(6274):1452-53.	Pre 1993
13. Adedeji,O.A.. Murphy's sign, acute cholecystitis and elderly people. J.R.COLL.SURG.EDINBURGH 1996;41(2):88-89.	Unacceptable reference standard used in study
14. Admassie,D. & Yesus,A.. Validity of ultrasonography in diagnosing obstructive jaundice. East Afr.Med.J. 2005;82(7):379-81.	Unacceptable reference standard used in study
15. Ainsworth,A.P., Rafaelsen,S.R., Wamberg,P.A., Durup,J., Pless,T.K.. Is there a difference in diagnostic accuracy and clinical impact between endoscopic ultrasonography and magnetic resonance cholangiopancreatography? Endoscopy 2003;35(12):1029-32.	Unacceptable reference standard used in study
16. Al-Azawi,D. & McMahon D.. The diagnosis of acute cholecystitis in patients undergoing early laparoscopic cholecystectomy in a	Unacceptable reference standard used in study

Reference	Reason for exclusion
community hospital. Surg Laparosc Endosc Percutan Tech 2007;17(1):19-21.	
17. Alqarqaz,E. & Seconde,A.. Xanthogranulomatous cholecystitis, a challenge in diagnosis and surgery. What to do? HPB 2010;12():456.	Abstract only
18. Al-Sheikh,W., Hourani,M., Barkin,J.S., Clarke,L.P., Ashkar,F.S.. A sign of symptomatic chronic cholecystitis on biliary scintigraphy. AJR 1983;American(2):283-85.	Diagnostic accuracy data not provided/ insufficient data provided
19. Amouyal,P., Amouyal,G., Levy,P., Tuzet,S., Palazzo,L., Vilgrain,V., et al. Diagnosis of choledocholithiasis by endoscopic ultrasonography. Gastroenterology 1994;106(4):1062-67.	Unsuitable analysis
20. Anderson,S.W. & Rho,E.. Detection of biliary duct narrowing and choledocholithiasis: accuracy of portal venous phase multidetector CT. Radiology 2008;247(2):418-27.	Unacceptable reference standard used in study
21. Anon. Ultrasonography and intravenous cholangiography in suspected acute biliary tract disease. Comparison by a blind prospective cross-matched study. Dig.Surg. 1986;3(4):287-91.	Pre 1993
22. Attasaranya,S.. The possible diagnostic role of endoscopic ultrasound in patients with dyspepsia. J.Med.Assoc.Thailand 2005;88(11):1660-65.	Unacceptable reference standard used in study
23. Aube,C., Delorme,B., Yzet,T., Burtin,P., Lebigot,J., Pessaux,P., et al. MR cholangiopancreatography versus endoscopic sonography in suspected common bile duct lithiasis: a prospective, comparative study. AJR 2005;American(1):55-62.	Unacceptable reference standard used in study
24. Bang,B.W., Hong,J.T., Choi,Y.C., Jeong,S., Lee,D.H., Kim,H.K., Park,S.G.. Is endoscopic ultrasound needed as an add-on test for gallstone diseases without choledocholithiasis on multidetector computed tomography? Digestive Diseases & Sciences 2012;57(12):3246-51.	Not every participant receives the reference standard
25. Barakos,J.A., Ralls,P.W., Lapin,S.A., Johnson,M.B., Radin,D.R., Colletti,P.M., Boswell,W.D.,Jr.. Cholelithiasis: evaluation with CT. Radiology 1987;162(2):415-18.	Pre 1993
26. Bartrum,R.J.,Jr. & Crow,H.C.. Ultrasonic and radiographic cholecystography. New Engl.J.Med. 1977;296(10):538-41.	Pre 1993
27. Basaran,C., Yildirim,Donmez F., Karakayali,F., Kayahan Ulu,E.M., Haberal,N., Ozturk,A., Tokmak,N.. Multidetector computed tomographic findings of xanthogranulomatous cholecystitis: Correlation with histopathologic findings. Turk.Klinikleri J.Med.Sci. 2009;29(2):331-37.	Unsuitable analysis
28. Bednarz,G.M. & Kalff,V.. Hepatobiliary scintigraphy. Increasing the accuracy of the preoperative diagnosis of acute cholecystitis. Medical Journal of Australia 1986;145(7):316-18.	Pre 1993
29. Benarroch-Gampel,J., Boyd,C.A., Sheffield,K.M., Townsend,C.M.,Jr.. Overuse of CT in patients with complicated gallstone disease. J.Am.Coll.Surg. 2011;213(4):524-30.	Unsuitable analysis
30. Berdah,S.V., Orsoni,P., Bege,T., Barthet,M., Grimaud,J.C.. Follow-up of selective endoscopic ultrasonography and/or endoscopic	Diagnostic accuracy data not provided/ insufficient

Reference	Reason for exclusion
retrograde cholangiography prior to laparoscopic cholecystectomy: a prospective study of 300 patients. Endoscopy 2001;33(3):216-20.	data provided
31. Bhangu,A., Richardson,C., Winter,H.. Value of initial radiological investigations in patients admitted to hospital with appendicitis, acute gallbladder disease or acute pancreatitis. Emerg.Med.J. 2010;27(10):754-57.	Diagnostic accuracy data not provided/ insufficient data provided
32. Bingener,J., Schwesinger,W.H., Chopra,S., Richards,M.L.. Does the correlation of acute cholecystitis on ultrasound and at surgery reflect a mirror image? AM.J.SURG. 2004;188(6):703-07.	Diagnostic accuracy data not provided/ insufficient data provided
33. Blaivas,M.. Diagnostic utility of cholescintigraphy in emergency department patients with suspected acute cholecystitis: comparison with bedside RUQ ultrasonography. J.Emerg.Med. 2007;33(1):47-52.	Unacceptable reference standard used in study
34. Bolog,N., Constantinescu,G., Oancea,I., Beuran,M., Albu,R., Tantau,M., Nicolau,E.. Magnetic resonance imaging of bile and pancreatic ducts: A retrospective study. Rom.J.Gastroenterol. 2004;13(2):91-97.	Unacceptable reference standard used in study
35. Bose,S.M., Mazumdar,A., Prakash,V.S., Kocher,R., Katariya,S.. Evaluation of the predictors of choledocholithiasis: comparative analysis of clinical, biochemical, radiological, radionuclear, and intraoperative parameters. Surg.Today 2001;31(2):117-22.	Unsuitable analysis
36. Brink,J.A., Simeone,J.F., Mueller,P.R., Saini,S., Tung,G.A., Spell,N.O.. Routine sonographic techniques fail to quantify gallstone size and number: a retrospective study of 111 surgically proved cases. AJR 1989;American(3):503-06.	Pre 1993
37. Brook,O.R., Kane,R.A., Tyagi,G., Siewert,B.. Lessons learned from quality assurance: errors in the diagnosis of acute cholecystitis on ultrasound and CT. AJR 2011;American(3):597-604.	Diagnostic accuracy data not provided/ insufficient data provided
38. Brunkwall,J. & Borjesson,B.. Cholescintiscan or infusion cholecystography in acute cholecystitis. A prospective study. ACTA CHIR.SCAND. 1985;151(2):139-42.	Pre 1993
39. Burrell,M.I., Avella,J., Spiro,H.M.. Diagnostic imaging procedures in acute pancreatitis. Comparison of ultrasound, intravenous cholangiography, and oral cholecystography. JAMA 1979;242(4):342-43.	Pre 1993
40. Buscarini,E., Tansini,P., Vallisa,D., Zambelli,A.. EUS for suspected choledocholithiasis: do benefits outweigh costs? A prospective, controlled study. Gastrointest.Endosc. 2003;57(4):510-18.	Unacceptable reference standard used in study
41. Cabada, Giadas T., Sarria Octavio de, Toledo L., Martinez-Berganza Asensio, M.T., Cozcolluela, Cabrejas R., Alberdi, Ibanez, I., Alvarez, Lopez A.. Helical CT cholangiography in the evaluation of the biliary tract: application to the diagnosis of choledocholithiasis. Abdom.Imaging 2002;27(1):61-70.	Unacceptable reference standard used in study
42. Cabellon S Jr & Brown,J.M.. Accuracy of the hepatobiliary scan in acute cholecystitis. AM.J.SURG. 1984;148(5):607-08.	Pre 1993
43. Calvo,M.M., Bujanda,L., Calderon,A., Heras,I., Cabriada,J.L., Bernal,A., Orive,V.. Role of magnetic resonance	Diagnostic accuracy data not provided/ insufficient

Reference	Reason for exclusion
cholangiopancreatography in patients with suspected choledocholithiasis. Mayo Clin.Proc. 2002;77(5):422-28.	data provided
44. Calvo,M.M., Bujanda,L., Heras,I., Calderon,A., Cabriada,J.L., Orive,V., Martinez,A.. Magnetic resonance cholangiography versus ultrasound in the evaluation of the gallbladder. J.Clin.Gastroenterol. 2002;34(3):233-36.	Diagnostic accuracy data not provided/ insufficient data provided
45. Canto,M.I., Chak,A., Stellato,T.. Endoscopic ultrasonography versus cholangiography for the diagnosis of choledocholithiasis. Gastrointest.Endosc. 1998;47(6):439-48.	Diagnostic accuracy data not provided/ insufficient data provided
46. Catheline,J.M. & Turner,R.. Laparoscopic ultrasonography is a complement to cholangiography for the detection of choledocholithiasis at laparoscopic cholecystectomy. BR.J.SURG. 2002;89(10):1235-39.	Unacceptable reference standard used in study
47. Chak,A., Hawes,R.H., Cooper,G.S., Hoffman,B., Catalano,M.F., Wong,R.C., Herbener,T.E.. Prospective assessment of the utility of EUS in the evaluation of gallstone pancreatitis. Gastrointest.Endosc. 1999;49(5):599-604.	Unacceptable reference standard used in study
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Reference	Reason for exclusion
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245. Soiva,M., Haveri,M., Taavitsainen,M.. The value of routine	Pre 1993

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252. Stabuc,B., Drobne,D., Ferkolj,I., Gruden,A., Jereb,J., Kolar,G., et al. Acute biliary pancreatitis: detection of common bile duct stones with endoscopic ultrasound. European Journal of Gastroenterology & Hepatology 2008;20(12):1171-75.	Unacceptable reference standard used in study
253. Sterioff,S., Smith,G.W., Oppel,W.C.. Comparison of oral and ultrasound cholecystography. SURG.GYNECOL.OBSTET. 1977;145(6):898-900.	Pre 1993
254. Stoller,J.L. & Cooperberg,P.L.. Diagnostic ultrasonography in acute cholecystitis. Can.J.Surg. 1979;22(4):374-76.	Pre 1993
255. Stone,K.S. & Scholten,D.J.. Ultrasound as the initial diagnostic study in patients with suspected gallstones. Am.Surg. 1980;46(8):444-48.	Pre 1993
256. Summers,S.M., Scruggs,W., Menchine,M.D., Lahham,S., Anderson,C., Amr,O., et al. A prospective evaluation of emergency department bedside ultrasonography for the detection of acute cholecystitis. Ann Emerg Med 2010;56(2):114-22.	Unacceptable reference standard used in study
257. Sverrisson,I.P., Bjornsson,E.S., Ivarsson,B., Jonsson,H.M., Hannesson,P.. The value of magnetic resonance cholangio-pancreatography (MRCP) in patients suspected to have choledocholithiasis. Scand.J.Gastroenterol. 2012;47():S68.	Abstract only
258. Swayne,L.C.. Diagnosis of acute cholecystitis by cholescintigraphy: significance of pericholecystic hepatic uptake. AJR 1989;American(6):1211-13.	Pre 1993

Reference	Reason for exclusion
259. Taylor,A.C., Little,A.F., Hennessy,O.F., Banting,S.W., Smith,P.J.. Prospective assessment of magnetic resonance cholangiopancreatography for noninvasive imaging of the biliary tree. <i>Gastrointest.Endosc.</i> 2002;55(1):17-22.	Unacceptable reference standard used in study
260. Tervonen,O. & Myllyla,V.. Sensitivity of ultrasonography for detecting gallstones. <i>Rontgen-Blatter</i> 1986;39(8):220-21.	Pre 1993
261. Thal,E.R., Weigelt,J., Landay,M.. Evaluation of ultrasound in the diagnosis of acute and chronic biliary tract disease. <i>ARCH.SURG.</i> 1978;113(4):500-03.	Pre 1993
262. Thomopoulos,K.C., Vagenas,K., Assimakopoulos,S.F., Giannikoulis,C., Arvaniti,V., Pagoni,N.. Endoscopic retrograde cholangiopancreatography is safe and effective method for diagnosis and treatment of biliary and pancreatic disorders in octogenarians. <i>Acta Gastroenterologica Belgica</i> 2007;70(2):199-202.	Diagnostic accuracy data not provided/ insufficient data provided
263. Thorboll,J., Vilmann,P., Jacobsen,B.. Endoscopic ultrasonography in detection of cholelithiasis in patients with biliary pain and negative transabdominal ultrasonography. <i>Scand.J.Gastroenterol.</i> 2004;39(3):267-69.	Diagnostic accuracy data not provided/ insufficient data provided
264. Tilahun,E.. Comparison of oral cholecystography (OCG) with real time ultrasonography in the diagnosis of cholelithiasis at the Tikur Anbessa Hospital, Addis Ababa, Ethiopia. <i>East Afr.Med.J.</i> 1990;67(1):39-42.	Pre 1993
265. Topal,B., Fieuws,S., Tomczyk,K., Aerts,R., Van,Steenbergen W., Verslype,C.. Clinical models are inaccurate in predicting bile duct stones in situ for patients with gallbladder. <i>Surg.Endosc.</i> 2009;23(1):38-44.	Unacceptable reference standard used in study
266. Trondsen,E., Edwin,B., Reiertsen,O., Faerden,A.E., Fagertun,H.. Prediction of common bile duct stones prior to cholecystectomy: a prospective validation of a discriminant analysis function. <i>ARCH.SURG.</i> 1998;133(2):162-66.	Unacceptable reference standard used in study
267. Trowbridge,R.L. & Rutkowski,N.K.. Does this patient have acute cholecystitis? <i>JAMA</i> 2003;289(1):80-86.	Not primary research
268. Tse,F., Liu,L., Barkun,A.N., Armstrong,D.. EUS: a meta-analysis of test performance in suspected choledocholithiasis. <i>Gastrointest.Endosc.</i> 2008;67(2):235-44.	Systematic review; included studies checked against protocol and individually appraised if eligible for inclusion
269. Tsujino,T., Sugita,R., Yoshida,H., Yagioka,H., Kogure,H., Sasaki,T., et al. Risk factors for acute suppurative cholangitis caused by bile duct stones. <i>Eur.J.Gastroenterol.Hepatol.</i> 2007;19(7):585-88.	Excluded by GDG as doesn't answer the review question (focus os on ASC not CBDS)
270. Uchiyama,K., Ozawa,S., Ueno,M., Hayami,S., Hirono,S., Ina,S., et al. Xanthogranulomatous cholecystitis: the use of preoperative CT findings to differentiate it from gallbladder carcinoma. <i>J.Hepato-Biliary-Pancreatic Surg.</i> 2009;16(3):333-38.	Unsuitable analysis
271. Urbach,D.R., Khajanchee,Y.S., Jobe,B.A., Standage,B.A., Hansen,P.D.. Cost-effective management of common bile duct	Diagnostic accuracy data not provided/ insufficient

Reference	Reason for exclusion
stones: a decision analysis of the use of endoscopic retrograde cholangiopancreatography (ERCP), intraoperative cholangiography, and laparoscopic bile duct exploration. Surg.Endosc. 2001;15(1):4-13.	data provided
272. van Santvoort,H.C., Bakker,O.J., Besselink,M.G., Bollen,T.L., Fischer,K., Nieuwenhuijs,V.B., et al. Prediction of common bile duct stones in the earliest stages of acute biliary pancreatitis. Endoscopy 2011;43(1):8-13.	Excluded by GDG as study population was too specific- people included had jaundice and pancreatitis
273. Varghese,J.C., Farrell,M.A., Courtney,G., Osborne,H., Murray,F.E.. A prospective comparison of magnetic resonance cholangiopancreatography with endoscopic retrograde cholangiopancreatography in the evaluation of patients with suspected biliary tract disease. Clin.Radiol. 1999;54(8):513-20.	Unacceptable reference standard used in study
274. Varghese,J.C., Liddell,R.P., Farrell,M.A., Murray,F.E., Osborne,D.H.. Diagnostic accuracy of magnetic resonance cholangiopancreatography and ultrasound compared with direct cholangiography in the detection of choledocholithiasis. Clin.Radiol. 2000;55(1):25-35.	Unacceptable reference standard used in study
275. Vazquez-Sequeiros,E., Gonzalez-Panizo,Tamargo F., Boixeda-Miquel,D.. Diagnostic accuracy and therapeutic impact of endoscopic ultrasonography in patients with intermediate suspicion of choledocholithiasis and absence of findings in magnetic resonance cholangiography. Rev.Esp.Enferm.Dig. 2011;103(9):464-71.	Main article not in English
276. Venu,R.P., Geenen,J.E., Toouli,J., Stewart,E.. Endoscopic retrograde cholangiopancreatography. Diagnosis of cholelithiasis in patients with normal gallbladder x-ray and ultrasound studies. JAMA 1983;249(6):758-61.	Pre 1993
277. Verma,D., Kapadia,A., Eisen,G.M.. EUS vs MRCP for detection of choledocholithiasis. Gastrointest.Endosc. 2006;64(2):248-54.	Systematic review; included studies checked against protocol and individually appraised if eligible for inclusion
278. Wehrmann,T. & Martchenko,K.. Catheter probe extraductal ultrasonography vs. conventional endoscopic ultrasonography for detection of bile duct stones. Endoscopy 2009;41(2):133-37.	Unacceptable index test used in study
279. Wong,S.K.-H., Lam,Y.-H., McKay,C.J., Lee,D.W.-H., Sung,J.J.-Y.. Prediction of common bile duct stones and cholangitis in acute biliary pancreatitis. Ann.Coll.Surg.Hong Kong 2002;6(1):12-17.	Unsuitable analysis
280. Yen,T.C., King,K.L., Chang,S.L.. Morphine-augmented versus CCK-augmented cholescintigraphy in diagnosing acute cholecystitis. Nucl.Med.Commun. 1995;16(2):84-87.	Unacceptable reference standard used in study
281. Yokoe,M., Takada,T., Mayumi,T., Yoshida,M., Hasegawa,H., Norimizu,S., et al. Accuracy of the Tokyo Guidelines for the diagnosis of acute cholangitis and cholecystitis taking into	Unacceptable reference standard used in study

Reference	Reason for exclusion
consideration the clinical practice pattern in Japan. <i>J.Hepato-Biliary-Pancreatic Sci.</i> 2011;18(2):250-57.	
282. Young,N., Kinsella,S., Raio,C.C., Nelson,M., Chiricolo,G., Johnson,A., et al. Economic impact of additional radiographic studies after registered diagnostic medical sonographer (RDMS)-certified emergency physician-performed identification of cholecystitis by ultrasound. <i>J.Emerg.Med.</i> 2010;38(5):645-51.	Diagnostic accuracy data not provided/ insufficient data provided
283. Yun,E.J., Choi,C.S., Yoon,D.Y., Seo,Y.L., Chang,S.K., Kim,J.S.. Combination of magnetic resonance cholangiopancreatography and computed tomography for preoperative diagnosis of the Mirizzi syndrome. <i>J.Comput.Assisted Tomogr.</i> 2009;33(4):636-40.	Unsuitable analysis
284. Zare,M., Kargar,S., Akhondi,M.. Role of liver function enzymes in diagnosis of choledocholithiasis in biliary colic patients. <i>Acta Med.Iran.</i> 2011;49(10):663-66.	Written in poor English-unable to understand study or its analysis
285. Zhang,L.-F., Hou,C.-S., Liu,J.-Y., Xiu,D.-R., Xu,Z., Wang,L.-X.. Strategies for diagnosis of xanthogranulomatous cholecystitis masquerading as gallbladder cancer. <i>Chin.Med.J.</i> 2012;125(1):109-13.	Unsuitable analysis
286. Zhi,F.C., Yan,Z.Q., Li,X.L., Zhu,J.X., Chen,C.L., Zhang,X.L.. Prospective study of diagnostic value of magnetic resonance cholangiopancreatography versus endoscopic retrograde cholangiopancreatography in cholangiopancreatic diseases. <i>Chin.J.Dig.Dis.</i> 2002;3(3):124-26.	Diagnostic accuracy data not provided/ insufficient data provided
287. Zidi,S.H., Prat,F., Le,Guen O., Rondeau,Y., Rocher,L., Fritsch,J., Choury,A.D.. Use of magnetic resonance cholangiography in the diagnosis of choledocholithiasis: prospective comparison with a reference imaging method. <i>Gut</i> 1999;44(1):118-22.	Unacceptable reference standard used in study

F.3 Excluded studies question 3

Reference	Reason for exclusion
1. . Asymptomatic gallstones. BR.J.SURG. 1990;77(4):368-72.	Not primary research
2. . Contribution of silent gallstones in gallbladder cancer. J.SURG.ONCOL. 2006;93(8):629-32.	Narrative review
3. . Mortality from cholelithiasis. Review of a case series and survey of the literature. ACTA CHIR.SCAND. 1964;127():502-14.	Doesn't predict complications
4. . Natural history of asymptomatic and symptomatic gallstones. AM.J.SURG. 1993;165(4):399-404.	Not primary research
5. . Silent gallstones: the doctor's dilemma. Compr.Ther. 1982;8(8):62-68.	Not primary research
6. Acalovschi,M.V., Blendea,D., Pascu,M., Georoceanu,A., Badea,R.I.. Risk of asymptomatic and symptomatic gallstones in moderately obese women: a longitudinal follow-up study. Am.J.Gastroenterol. 1997;92(1):127-31.	Doesn't predict complications
7. Angelico,F., Del,Ben M., Barbato,A., Conti,R.. Ten-year incidence and natural history of gallstone disease in a rural population of women in central Italy. The Rome Group for the Epidemiology and Prevention of Cholelithiasis (GREPCO). Italian Journal of Gastroenterology & Hepatology 1997;29(3):249-54.	Doesn't predict complications
8. Attili,A.F. & Pazzi,P.. Prevalence of previously undiagnosed gallstones in a population with multiple risk factors. Dig.Dis.Sci. 1995;40(8):1770-74.	Doesn't predict complications
9. Balandraud,P., Biance,N., Peycru,T., Tardat,E., Bonnet,P.M., Cazeres,C.. Fortuitous discovery of common bile duct stones: results of a conservative strategy. Gastroenterol.Clin.Biol. 2008;32(4):408-12.	Doesn't predict complications
10. Baltas,C.S., Balanika,A.P., Sgantzos,M.N., Papakonstantinou,O., Spyridopoulos,T., Bizimi,V., Tsouroulas,M.. Gallstones and biliary sludge in Greek patients with complete high spinal cord injury: an ultrasonographical evaluation. Singapore Med.J. 2009;50(9):889-93.	Doesn't predict complications
11. Behari,A.. Asymptomatic Gallstones (AsGS) - To Treat or Not to? INDIAN J.SURG. 2012;74(1):4-12.	Narrative review
12. Berzlanovich,A.M., Keil,W., Waldhoer,T., Sim,E., Fasching,P.. Do centenarians die healthy? An autopsy study. Journals of Gerontology Series A-Biological Sciences & Medical Sciences 2005;60(7):862-65.	Doesn't predict complications
13. Choi,S.Y., Kim,T.S., Kim,H.J., Park,J.H., Park,D.I., Cho,Y.K., et al. Is it necessary to perform prophylactic cholecystectomy for asymptomatic subjects with gallbladder polyps and gallstones? Journal of Gastroenterology & Hepatology 2010;25(6):1099-1004.	Doesn't predict complications
14. Colcock,B.P. & Killen,R.B.. The asymptomatic patient with gallstones. AM.J.SURG. 1967;113(1):44-48.	Doesn't predict complications
15. Coleman,M.J., Ham,J.M., Watts,J.M., Kune,G.A.. A debate: asymptomatic gallstones should not be removed. Australian & New Zealand Journal of Surgery 1987;57(12):897-903.	Not primary research
16. COMFORT,M.W. & GRAY,H.K.. The silent gallstone; a 10- to 20 year follow-up study of 112 cases. Ann.Surg. 1948;128(5):931-37.	Doesn't predict complications

Reference	Reason for exclusion
17. Csendes,A., Becerra,M., Rojas,J.. Number and size of stones in patients with asymptomatic and symptomatic gallstones and gallbladder carcinoma: a prospective study of 592 cases. <i>Journal of Gastrointestinal Surgery</i> 2000;4(5):481-85.	Doesn't predict complications
18. Cucchiaro,G., Rossitch,J.C., Bowie,J., Branum,G.D., Niotis,M.T., Watters,C.R.. Clinical significance of ultrasonographically detected coincidental gallstones. <i>Digestive Diseases & Sciences</i> 1990;35(4):417-21.	Doesn't predict complications
19. Cucchiaro,G., Watters,C.R., Rossitch,J.C.. Deaths from gallstones. Incidence and associated clinical factors. <i>Ann.Surg.</i> 1989;209(2):149-51.	Doesn't predict complications
20. Del,Favero G., Caroli,A., Meggiato,T., Volpi,A., Scalon,P., Puglisi,A.. Natural history of gallstones in non-insulin-dependent diabetes mellitus. A prospective 5-year follow-up. <i>Digestive Diseases & Sciences</i> 1994;39(8):1704-07.	Doesn't predict complications
21. Desai,H.G.. Treatment of asymptomatic gallstones. <i>Journal of the Association of Physicians of India</i> 2003;51():999-1000.	Not primary research
22. Dutta,U., Nagi,B., Garg,P.K., Sinha,S.K., Singh,K.. Patients with gallstones develop gallbladder cancer at an earlier age. <i>Eur.J.Cancer Prev.</i> 2005;14(4):381-85.	Doesn't predict complications
23. Fendrick,A.M., Gleeson,S.P., Cabana,M.D.. Asymptomatic gallstones revisited. Is there a role for laparoscopic cholecystectomy? <i>Archives of Family Medicine</i> 1993;2(9):959-68.	Doesn't predict complications
24. Friedman,G.D. & Raviola,C.A.. Prognosis of gallstones with mild or no symptoms: 25 years of follow-up in a health maintenance organization. <i>J.Clin.Epidemiol.</i> 1989;42(2):127-36.	Doesn't predict complications
25. Friedman,L.S., Roberts,M.S., Brett,A.S.. Management of asymptomatic gallstones in the diabetic patient. A decision analysis. <i>Ann.Intern.Med.</i> 1988;109(11):913-19.	Doesn't predict complications
26. Fuller,W., Rasmussen,J.J., Ghosh,J.. Is routine cholecystectomy indicated for asymptomatic cholelithiasis in patients undergoing gastric bypass? <i>Obes.Surg.</i> 2007;17(6):747-51.	Doesn't predict complications
27. Gracie,W.A.. The natural history of silent gallstones: the innocent gallstone is not a myth. <i>New Engl.J.Med.</i> 1982;307(13):798-800.	Doesn't predict complications
28. Gupta,S.K.. Silent gallstones: a therapeutic dilemma. <i>Tropical Gastroenterology</i> 2004;25(2):65-68.	Not primary research
29. Gurusamy,K.S.. Cholecystectomy versus no cholecystectomy in patients with silent gallstones. <i>Cochrane Database Syst.Rev.</i> 2007;(1):CD006230.	Doesn't predict complications
30. Gurusamy,Kurinchi Selvan. Cholecystectomy for patients with silent gallstones. 2007;(1):n. pag..	Not primary research
31. Halldestam,I., Enell,E.L., Kullman,E.. Development of symptoms and complications in individuals with asymptomatic gallstones. <i>BR.J.SURG.</i> 2004;91(6):734-38.	Doesn't predict complications
32. Heaton,K.W., Braddon,F.E., Mountford,R.A., Hughes,A.O.. Symptomatic and silent gall stones in the community. <i>Gut</i>	Doesn't predict complications

Reference	Reason for exclusion
1991;32(3):316-20.	
33. Jackson,T., Treleaven,D., Arlen,D., D'Sa,A., Lambert,K.. Management of asymptomatic cholelithiasis for patients awaiting renal transplantation. <i>Surg.Endosc.</i> 2005;19(4):510-13.	Doesn't predict complications
34. Juhasz,E.S., Wolff,B.G., Meagher,A.P., Kluiber,R.M., Weaver,A.L.. Incidental cholecystectomy during colorectal surgery. <i>Ann.Surg.</i> 472;/219(5):467-72.	Doesn't predict complications
35. Kao,L.S. & Kuhr,C.S.. Should cholecystectomy be performed for asymptomatic cholelithiasis in transplant patients? <i>J.Am.Coll.Surg.</i> 2003;197(2):302-12.	Narrative review
36. Khan,H.N., Harrison,M., Bassett,E.E.. A 10-year follow-up of a longitudinal study of gallstone prevalence at necropsy in South East England. URL: (accessed)	Doesn't predict complications
37. McSherry,C.K., Ferstenberg,H., Calhoun,W.F., Lahman,E.. The natural history of diagnosed gallstone disease in symptomatic and asymptomatic patients. <i>Ann.Surg.</i> 1985;202(1):59-63.	Doesn't predict complications
38. Mohandas,K.M.. Cholecystectomy for asymptomatic gallstones can reduce gall bladder cancer mortality in northern Indian women. <i>Indian J.Gastroenterol.</i> 2006;25(3):147-51.	Not primary research
39. Montariol,T., Msika,S., Charlier,A., Rey,C., Bataille,N., Hay,J.M., Lacaine,F.. Diagnosis of asymptomatic common bile duct stones: preoperative endoscopic ultrasonography versus intraoperative cholangiography--a multicenter, prospective controlled study. French Associations for Surgical Research. <i>Surgery (GBR)</i> 1998;124(1):6-13.	Doesn't predict complications
40. Orozco,H., Takahashi,T., Mercado,M.A., Prado,E.. Long-term evolution of asymptomatic cholelithiasis diagnosed during abdominal operations for variceal bleeding in patients with cirrhosis. <i>AM.J.SURG.</i> 1994;168(3):232-34.	Doesn't predict complications
41. Patino,J.F.. Asymptomatic cholelithiasis revisited. <i>World J.Surg.</i> 1998;22(11):1119-24.	Not primary research
42. Pezzolla,F., Lorusso,D., Guerra,V.. Asymptomatic gallstones. What to do in patients undergoing colonic surgery for cancer? <i>ACTA CHIR.BELG.</i> 1993;93(4):154-57.	Doesn't predict complications
43. Ros,E., Valderrama,R., Bru,C., Bianchi,L.. Symptomatic versus silent gallstones. Radiographic features and eligibility for nonsurgical treatment. <i>Digestive Diseases & Sciences</i> 1994;39(8):1697-7003.	Doesn't predict complications
44. Rosseland,A.R.. Asymptomatic common bile duct stones. <i>European Journal of Gastroenterology & Hepatology</i> 2000;12(11):1171-73.	Narrative review
45. Sakorafas,G.H. & Milingos,D.. Asymptomatic cholelithiasis: is cholecystectomy really needed? A critical reappraisal 15 years after the introduction of laparoscopic cholecystectomy. <i>Digestive Diseases & Sciences</i> 2007;52(5):1313-25.	Narrative review
46. Stewart,L. & Easter,D.. Asymptomatic gallstones. Nonsurgical versus surgical approach. <i>Probl.Gen.Surg.</i> 1989;6(1):73-92.	Narrative review
47. Thistle,J.L. & Cleary,P.A.. The natural history of cholelithiasis: The	GDG excluded as study

Reference	Reason for exclusion
National Cooperative Gallstone Study. ANN INTERN MED 1984;101(2):171-75.	used an inappropriate method for diagnosing gallstones
48. Toosi,F.S. & Ehsanbakhsh,A.R.. Asymptomatic gallstones and related risk factors in Iran. Hepato-Gastroenterology 2011;58(109):1123-26.	Doesn't predict complications
49. Tritapepe,R., Piro,D., Annoni,F.. Predictive factors for cholelithiasis complications. Panminerva Medica 1999;41(3):243-46.	Doesn't predict complications
50. Tung,T.H., Ho,H.M., Shih,H.C., Chou,P., Liu,J.H., Chen,V.T., Chan,D.C.. A population-based follow-up study on gallstone disease among type 2 diabetics in Kinmen, Taiwan. World J.Gastroenterol. 2006;12(28):4536-40.	Doesn't predict complications
51. Verma,A. & Mohan,S.. Ultrasonographical evaluation of asymptomatic gall bladder diseases - An epidemiological study in North India. J.Clin.Diagn.Res. 2011;5(2):328-30.	Doesn't predict complications
52. Weinstein,D., Herbert,M., Bendet,N., Sandbank,J.. Incidental finding of gallbladder carcinoma. Israel Medical Association Journal: Imaj 2002;4(5):334-36.	Doesn't predict complications
53. Wenckert,A.. The natural course of gallstone disease: eleven-year review of 781 nonoperated cases. Gastroenterology 1966;50(3):376-81.	Doesn't predict complications
54. Yano,H., Kinuta,M., Iwazawa,T., Kanoh,T.. Laparoscopic cholecystectomy for asymptomatic cholelithiasis. Dig.Endosc. 2003;15(3):190-95.	Doesn't predict complications
55. Zubler,J., Markowski,G., Yale,S., Graham,R.. Natural history of asymptomatic gallstones in family practice office practices. Archives of Family Medicine 1998;7(3):230-33.	Doesn't predict complications

F.4 Excluded studies question 4 & 5

Ref	Reason for exclusion
1. A randomized study of cholecystectomy with and without drainage. <i>Surgery, Gynecology & Obstetrics</i> 1982;155(2):171-76.	Not an intervention of interest
2. A systematic review of the effectiveness and safety of laparoscopic cholecystectomy. <i>Ann.R.Coll.Surg. Engl.</i> 1996;78(5):476.	Not primary research
3. Common bile duct stones: ERCP or surgery? <i>HPB Surg.</i> 1992;5(4):277-80.	Not primary research
4. Early endoscopic management of acute gallstone pancreatitis--an evidence-based review. <i>Journal of Gastrointestinal Surgery</i> 2001;5(3):243-50.	Not primary research
5. Early versus delayed cholecystectomy for acute cholecystitis, a prospective randomized study. <i>Pak J Gastroenterol</i> 2002;16(2):30-34.	Unavailable
6. Laparoendoscopic management of concomitant gallbladder stones and common bile duct stones: what is the best technique? <i>Surgical Laparoscopy, Endoscopy & Percutaneous Techniques</i> 2011;21(4):282-87.	Not an intervention of interest
7. Aboulian,A., Chan,T., Yaghoubian,A., Kaji,A.H., Putnam,B., Neville,A., Stabile,B.E.. Early cholecystectomy safely decreases hospital stay in patients with mild gallstone pancreatitis: a randomized prospective study. <i>ANN.SURG.</i> 2010;251(4):615-19.	Comparison of early vs Early, not early vs delayed
8. Adamek,H.E., Buttmann,A., Kohler,B., Schlauch,D., Weber,J., Jakobs,R.. Extracorporeal piezoelectric lithotripsy (EPL) and intracorporeal electro hydraulic lithotripsy (EHL) on complicated gallstones: A prospective, randomised comparison study. <i>Endoskopie Heute</i> 1993;6(1):62-63.	Abstract only
9. Ahmad,N.Z. & Byrnes,G.. A meta-analysis of ambulatory versus inpatient laparoscopic cholecystectomy. <i>Surg.Endosc.</i> 2008;22(9):1928-34.	Systematic review-relevant individual studies were obtained and appraised
10. Ai,T. & Azemoto,R.. Prevention of gallstones by ursodeoxycholic acid after cardiac surgery. <i>J.Gastroenterol.</i> 2003;38(11):1071-76.	Inappropriate population
11. Akyurek,N., Salman,B., Yuksel,O., Tezcaner,T., Irkorucu,O., Yucel,C., Oktar,S.. Management of acute calculous cholecystitis in high-risk patients: percutaneous cholecystotomy followed by early laparoscopic cholecystectomy. <i>Surgical Laparoscopy, Endoscopy & Percutaneous Techniques</i> 2005;15(6):315-20.	Not a comparison listed in the review protocols
12. Al-Arfaj,A.L., Shahab,K., Al-Ghassab,G., Al-Breiki,H., Al-Shawan,S.. Drainage after cholecystectomy. A prospective randomized clinical trial. <i>INT.SURG.</i> 1992;77(4):274-76.	Not an intervention of interest
13. Alexakis,N.. Meta-analysis of one- vs. two-stage laparoscopic/endoscopic management of common bile duct stones. [Review]. <i>HPB</i> 2012;14(4):254-59.	Systematic review-relevant individual studies were obtained and appraised
14. Alooff,M. & Arnaud,J.P.. Cholecystectomy with or without prophylactic drainage. Randomised prospective study of 200 cases. <i>MED CHIR DIG</i>	Not an intervention of interest

Ref	Reason for exclusion
1987;16(1):9-12.	
15. Antoniou,S.A. & Antoniou,G.A.. Laparoscopic treatment of Mirizzi syndrome: a systematic review. <i>Surg.Endosc.</i> 2010;24(1):33-39.	Systematic review-relevant individual studies were obtained and appraised
16. Arnold,J.C., Benz,C., Martin,W.R., Adamek,H.E.. Endoscopic papillary balloon dilation vs. sphincterotomy for removal of common bile duct stones: a prospective randomized pilot study. <i>Endoscopy</i> 2001;33(7):563-67.	ERCP interventions
17. Artifon,E.L., Kumar,A., Eloubeidi,M.A., Chu,A., Halwan,B., Sakai,P.. Prospective randomized trial of EUS versus ERCP-guided common bile duct stone removal: an interim report (with video). <i>Gastrointest.Endosc.</i> 2009;69(2):238-43.	Not an intervention of interest
18. Ayub,Khurram & Slavin,John. Endoscopic retrograde cholangiopancreatography in gallstone-associated acute pancreatitis. 2010;(1):n. pag..	Systematic review-relevant individual studies were obtained and appraised
19. Barkun,J.S., Barkun,A.N., Sampalis,J.S., Fried,G., Taylor,B., Wexler,M.J., Goresky,C.A.. Randomised controlled trial of laparoscopic versus mini cholecystectomy. The McGill Gallstone Treatment Group. <i>Lancet</i> 1992;340(8828):1116-19.	Not an intervention of interest
20. Baron,T.H.. Endoscopic balloon dilation of the biliary sphincter compared to endoscopic biliary sphincterotomy for removal of common bile duct stones during ERCP: a metaanalysis of randomized, controlled trials. <i>Am.J.Gastroenterol.</i> 2004;99(8):1455-60.	Systematic review-relevant individual studies were obtained and appraised
21. Behrns,K.E., Ashley,S.W., Hunter,J.G.. Early ERCP for gallstone pancreatitis: for whom and when? <i>Journal of Gastrointestinal Surgery</i> 2008;12(4):629-33.	Not primary research
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Ref	Reason for exclusion
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Ref	Reason for exclusion
large bile duct stones: A randomized controlled trial. <i>Dig.Liver Dis.</i> 2013;45(4):301-04.	
118. Pezzilli, R. & Morselli-Labate,A.M.. NSAIDS and acute pancreatitis: A systematic review. <i>Pharmaceuticals</i> 2010;3(3):558-71.	Systematic review-relevant individual studies were obtained and appraised
119. Picchio,M., De,Angelis F., Zazza,S., Di,Filippo A., Mancini,R., Pattaro,G., et al. Drain after elective laparoscopic cholecystectomy. A randomized multicentre controlled trial. <i>Surg.Endosc.</i> 2012;26(10):2817-22.	Not an intervention of interest
120. Pisello,F., Geraci,G., Li,Volsi F., Modica,G.. Permanent stenting in 'unextractable' common bile duct stones in high risk patients. A prospective randomized study comparing two different stents. <i>Langenbecks Archives of Surgery</i> 2008;393(6):857-63.	Compares different types of stent
121. Polkowski,M., Regula,J., Tilszer,A., Rupinski,M., Wronska,E.. Endosonography instead of endoscopic retrograde cholangiography in patients with low-to-moderate probability of bile duct stones - A randomised, prospective comparison of two management strategies. <i>Gastroenterol.Pol.</i> 2001;8(3):269-76.	Not written in English
122. Porati,M. & Sina,G.. Cholecystectomy without drainage. Randomized clinical study. <i>MINERVA-CHIR</i> 1984;39(15-16):1081-86.	Not an intervention of interest
123. Puggioni,A.. A metaanalysis of laparoscopic cholecystectomy in patients with cirrhosis. <i>J.Am.Coll.Surg.</i> 2003;197(6):921-26.	Systematic review-relevant individual studies were obtained and appraised
124. Rai,R. & Sinha,A.. Randomized clinical trial of open versus laparoscopic cholecystectomy in the treatment of acute cholecystitis (Br J Surg 2005; 92: 44-49). <i>BR.J.SURG.</i> 2005;92(4):494.	Not primary research
125. Reinders,J.S., Goud,A., Timmer,R., Kruyt,P.M., Witteman,B.J., Smakman,N., et al. Early laparoscopic cholecystectomy improves outcomes after endoscopic sphincterotomy for choledochocystolithiasis. <i>Gastroenterology</i> 2010;138(7):2315-20.	Duplicate paper
126. Roat,J., Fromm,H., Sarva,R.P.. Comparative efficacy and side effects of ursodeoxycholic (UDC) and chenodeoxycholic (CDC) acids in dissolving gall-stones: Results of a double-blind controlled study. <i>Gastroenterology</i> 1982;82(5 II):1162.	Abstract only
127. Rohatgi,A.. Mirizzi syndrome: laparoscopic management by subtotal cholecystectomy. <i>Surg.Endosc.</i> 2006;20(9):1477-81.	Not a randomised controlled trial
128. Saad,A.M.. Cholecystectomy with and without drainage: a prospective randomised study. <i>East African Medical Journal</i> 1993;70(8):499-501.	Not an intervention of interest
129. Sajid,M.S., Leaver,C., Haider,Z., Worthington,T., Karanja,N.. Routine on-table cholangiography during cholecystectomy: a systematic review. [Review]. <i>Ann.R.Coll.Surg.Engl.</i> 2012;94(6):375-80.	Systematic review-relevant individual studies were obtained and appraised

Ref	Reason for exclusion
130. Salman,B., Yilmaz,U., Kerem,M., Bedirli,A., Sare,M., Sakrak,O.. The timing of laparoscopic cholecystectomy after endoscopic retrograde cholangiopancreaticography in cholelithiasis coexisting with choledocholithiasis. <i>J.Hepato-Biliary-Pancreatic Surg.</i> 2009;16(6):832-36.	Comparison of early vs Early, not early vs delayed
131. Salman,B., Yuksel,O., Irkorucu,O., Akyurek,N., Tezcaner,T., Dogan,I., Erdem,O.. Urgent laparoscopic cholecystectomy is the best management for biliary colic. A prospective randomized study of 75 cases. <i>DIG.SURG.</i> 2005;22(1-2):95-99.	Inappropriate population
132. Sanchez,Bueno F., Parrilla,P., Ayllon,J.G., Lujan,J.A., Robles,R., Ramirez,P., Pellicer,E.. Timing of operation in acute cholecystitis: Prospective study of 375 cases divided into three series - Early, delayed and late surgery. <i>DIG.SURG.</i> 1993;10(2):72-77.	Not a randomised controlled trial
133. Schaefer,D., Barth,H., Thon,K., Jostarndt,L.. [Early or delayed operation in patients with acute cholecystitis. Results of a prospective randomized controlled clinical trial (author's transl)]. <i>Chirurgisches Forum f�r experimentelle und klinische Forschung</i> 1980;():149-53.	Not written in English
134. Serralta,A.S., Bueno,J.L., Planells,M.R.. Prospective evaluation of emergency versus delayed laparoscopic cholecystectomy for early cholecystitis. <i>Surgical Laparoscopy, Endoscopy & Percutaneous Techniques</i> 2003;13(2):71-75.	Not a randomised controlled trial
135. Sharma,V.K.. Metaanalysis of randomized controlled trials of endoscopic retrograde cholangiography and endoscopic sphincterotomy for the treatment of acute biliary pancreatitis. <i>Am.J.Gastroenterol.</i> 1999;94(11):3211-14.	Systematic review-relevant individual studies were obtained and appraised
136. Sheen-Chen,S.M.. Choledochotomy for biliary lithiasis: is routine T-tube drainage necessary? A prospective controlled trial. <i>ACTA CHIR.SCAND.</i> 1990;156(5):387-90.	Not an intervention of interest
137. Shiffman,M.L., Kaplan,G.D., Brinkman-Kaplan,V.. Prophylaxis against gallstone formation with ursodeoxycholic acid in patients participating in a very-low-calorie diet program. <i>Ann.Intern.Med.</i> 1995;122(12):899-905.	Inappropriate population
138. Shikata,S. & Noguchi,Y.. Early versus delayed cholecystectomy for acute cholecystitis: a meta-analysis of randomized controlled trials. <i>SURG.TODAY</i> 2005;35(7):553-60.	Systematic review-relevant individual studies were obtained and appraised
139. Siddiqui,M.N.. Systematic review and meta-analysis of intraoperative versus preoperative endoscopic sphincterotomy in patients with gallbladder and suspected common bile duct stones (<i>Br J Surg</i> 2011; 98: 908-916). <i>BR.J.SURG.</i> 2012;99(1):144.	Not primary research
140. Siddiqui,M.R., Sajid,M.S., Nisar,A., Ali,H., Zaborszky,A.. A meta-analysis of outcomes after routine aspiration of the gallbladder during cholecystectomy. <i>INT.SURG.</i> 2011;96(1):21-27.	Systematic review-relevant individual studies were obtained and appraised
141. Siddiqui,T., MacDonald,A., Chong,P.S.. Early versus delayed	Systematic review-

Ref	Reason for exclusion
laparoscopic cholecystectomy for acute cholecystitis: a meta-analysis of randomized clinical trials. Am.J.Surg. 2008;195(1):40-47.	relevant individual studies were obtained and appraised
142. 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. Am.J.Gastroenterol. 2011;106(2):278-85.	ERCP interventions
143. Stewart,L. & Easter,D.. Asymptomatic gallstones. Nonsurgical versus surgical approach. Probl.Gen.Surg. 1989;6(1):73-92.	Not a randomised controlled trial
144. Sugerman,H.J., Brewer,W.H., Schiffman,M.L., Brolin,R.E., Fobi,M.A., Linner,J.H., et al. A multicenter, placebo-controlled, randomized, double-blind, prospective trial of prophylactic ursodiol for the prevention of gallstone formation following gastric-bypass-induced rapid weight loss. Am.J.Surg. 1996;169(1):91-96.	Inappropriate population
145. Tang,Y. & Xu,Y.. Effect of early endoscopic treatment for patients with severe acute biliary pancreatitis.	Unavailable
146. Thornell,E. & Jansson,R.. IV indomethacin effectively relieves biliary pain. A double-blind study with placebo. Gastroenterology 1981;80(5 II):1303.	Abstract only
147. Thornell,E., Jansson,R., Kral,J.. Clinical effects of indomethacin in attacks of biliary pain. Gastroenterology 1979;76(5 II):1262.	Abstract only
148. Tranter,S.E.. Comparison of endoscopic sphincterotomy and laparoscopic exploration of the common bile duct. BR.J.SURG. 2002;89(12):1495-5004.	Systematic review-relevant individual studies were obtained and appraised
149. Tse,F.. Early routine endoscopic retrograde cholangiopancreatography strategy versus early conservative management strategy in acute gallstone pancreatitis. [Review]. Cochrane Database Syst.Rev. 2012;5():CD009779.	Systematic review-relevant individual studies were obtained and appraised
150. Uy,M.C., Daez,M.L., Sy,P.P., Banez,V.P., Espinosa,W.Z.. Early ERCP in acute gallstone pancreatitis without cholangitis: a meta-analysis. Jop: Journal of the Pancreas [Electronic Resource] 2009;10(3):299-305.	Systematic review-relevant individual studies were obtained and appraised
151. Uy,M.C., Talingdan-Te,M.C., Espinosa,W.Z., Daez,M.L.. Ursodeoxycholic acid in the prevention of gallstone formation after bariatric surgery: a meta-analysis. OBES.SURG. 2008;18(12):1532-38.	Systematic review-relevant individual studies were obtained and appraised
152. van Baal,M.C., Besselink,M.G., Bakker,O.J., van Santvoort,H.C., Schaapherder,A.F., Nieuwenhuijs,V.B., et al. Timing of cholecystectomy after mild biliary pancreatitis: a systematic review. [Review]. ANN.SURG. 2012;255(5):860-66.	Systematic review-relevant individual studies were obtained and appraised

Ref	Reason for exclusion
153. Vlavianos,P., Chopra,K., Mandalia,S., Anderson,M., Thompson,J.. Endoscopic balloon dilatation versus endoscopic sphincterotomy for the removal of bile duct stones: a prospective randomised trial. Gut 2003;52(8):1165-69.	ERCP interventions
154. Weigand,K., Koninger,J., Encke,J., Buchler,M.W., Stremmel,W.. Acute cholecystitis - early laparoscopic surgery versus antibiotic therapy and delayed elective cholecystectomy: ACDC-study. Trials [Electronic Resource] 2007;8():29.	Not primary research
155. Williams,C.N. & Gowan,R.. A double-blind placebo-controlled trial of ursodeoxycholic acid in the prevention of gallstones during weight loss after vertical banded gastroplasty. OBES.SURG. 1993;3(3):257-59.	Inappropriate population
156. Wu,X., Yang,Y., Dong,P., Gu,J., Lu,J., Li,M., et al. Primary closure versus T-tube drainage in laparoscopic common bile duct exploration: a meta-analysis of randomized clinical trials. [Review]. Langenbecks Archives of Surgery 2012;397(6):909-16.	Not an intervention of interest
157. Wudel,L.J.,Jr., Wright,J.K., Debelak,J.P., Allos,T.M., Shyr,Y.. Prevention of gallstone formation in morbidly obese patients undergoing rapid weight loss: results of a randomized controlled pilot study. J.SURG.RES. 2002;102(1):50-56.	Inappropriate population
158. Xin,Y., Hong,D.F., Cai,X.J., Mou,Y.P., Li,L.B., Wang,G.Y., et al. [Comparison of laparoscopic cholecystectomy combined with intraoperative endoscopic sphincterotomy and combined with laparoscopic common bile duct exploration in treatment of: cholelithiasis and calculus of common bile duct]. Zhonghua yi xue za zhi 2007;87(38):2703-05.	Not written in English
159. Yao,L.Q., Zhang,Y.Q., Zhou,P.H., Gao,W.D., He,G.J.. Endoscopic sphincterotomy or papillary balloon dilatation for choledocholithiasis. Hepatobiliary & Pancreatic Diseases International 2002;1(1):101-05.	ERCP interventions
160. 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. Gastrointest.Endosc. 2010;72(6):1185-91.	ERCP interventions
161. Yin,Z., Xu,K., Sun,J., Zhang,J., Xiao,Z., Wang,J., et al. Is the end of the T-tube drainage era in laparoscopic choledochotomy for common bile duct stones is coming? A systematic review and meta-analysis. [Review]. ANN.SURG. 2013;257(1):54-66.	Not an intervention of interest
162. Young,J.. Recovery following laparoscopic cholecystectomy in either a 23 hour or an 8 hour facility.	Relevant outcomes are not reported
163. Zhang,R.-X., Zheng,Z., He,T., Wang,Y., Qu,B.-H., Zheng,X.-L., et al. Primary suture versus T-tube drainage after laparoscopic common bile duct stone exploration: A systematic review. Chin.J.Evid.-Based Med. 2011;11(10):1161-65.	Not an intervention of interest

F.5 Excluded studies question 6

Ref	Reason for exclusion
1. . Ambulatory laparoscopic surgery: The patient's perspective in an impatient world. AUST.NEWS ZEALAND J.SURG. 1998;68(11):753-54.	Not primary research
2. . Nursing care study. Cholecystectomy: patients have feelings too. Nursing Mirror 1980;150(7):52-54.	Not primary research
3. . Outpatient and physician reporting of biliary procedures. J.Am.Health Inf.Manage.Assoc. 2008;79(10):102-04.	Does not identify areas where information and education should be provided
4. . Patient education. Gallstones. Australian Family Physician 1993;22(1):53.	Not primary research
5. . Post-cholecystectomy diarrhoea: A running commentary. Gut 1999;45(6):796-97.	Not primary research
6. . The role of low fat diets in the management of gall-bladder disease. J.HUM.NUTR.DIET. 1992;5(5):267-73.	Does not identify areas where information and education should be provided
7. Aggarwal,S.. Predictors of improvement in health-related quality of life in patients undergoing cholecystectomy (Br J Surg 2003; 90: 1549-1545) [4]. BR.J.SURG. 2004;91(4):510.	Does not identify areas where information and education should be provided
8. Ali,R.B. & Cahill,R.A.. Weight gain after laparoscopic cholecystectomy. Ir.J.Med.Sci. 2004;173(1):9-12.	Does not identify areas where information and education should be provided
9. Amir,M.. Influence of cholecystectomy on symptomatic cholelithiasis: Can all symptoms be improved? Rawal Med.J. 2009;34(2):141-44.	Post cholecystectomy symptoms
10. Attili,A.F., De,Santis A., Attili,F., Roda,E., Festi,D.. Prevalence of gallstone disease in first-degree relatives of patients with cholelithiasis. World J.Gastroenterol. 2005;11(41):6508-11.	Does not identify areas where information and education should be provided
11. Balakrishnan,S., Samdani,T., Singhal,T., Hussain,A., Grandy-Smith,S., Nicholls,J.. Patient experience with gallstone disease in a national health service district hospital. Journal of the Society of Laparoendoscopic Surgeons 2008;12(4):389-94.	Does not identify areas where information and education should be provided
12. Barthelsson,C. & Norberg,A.. Longitudinal changes in health and symptoms following laparoscopic cholecystectomy. Ambul.Surg. 2009;15(4):n. pag..	Does not identify areas where information and education should be provided
13. Barthelsson,C. & Nordstrom,G.. Sense of coherence and other predictors of pain and health following laparoscopic cholecystectomy. Scandinavian Journal of Caring Sciences 2011;25(1):143-50.	Does not identify areas where information and education should be provided
14. Bass,E.B., Steinberg,E.P., Pitt,H.A., Griffiths,R.I., Lillemoe,K.D., Saba,G.P.. Comparison of the rating scale and the standard gamble	Post cholecystectomy symptoms

Ref	Reason for exclusion
in measuring patient preferences for outcomes of gallstone disease. MED.DECIS.MAK. 1994;14(4):307-14.	
15. Black,N.A. & Thompson,E.. Symptoms and health status before and six weeks after open cholecystectomy: a European cohort study.ECHSS Group. European Collaborative Health Services Study Group. Gut 1994;35(9):1301-05.	Does not identify areas where information and education should be provided
16. Chen,L., Tao,S.F., Xu,Y., Fang,F.. Patients' quality of life after laparoscopic or open cholecystectomy. Journal of Zhejiang University SCIENCE B 2005;6(7):678-81.	Does not identify areas where information and education should be provided
17. Devine,E.C., O'Connor,F.W., Cook,T.D., Wenk,V.A.. Clinical and financial effects of psychoeducational care provided by staff nurses to adult surgical patients in the post-DRG environment. AM.J.PUBLIC HEALTH 1988;78(10):1293-97.	Does not identify areas where information and education should be provided
18. Emberton,M.. Post-cholecystectomy symptoms after laparoscopic cholecystectomy. Ann.R.Coll.Surg. Engl. 1994;76(1):69.	Not primary research
19. FREUD,M., DJALDETTI,M., DE,VRIES A.. Postcholecystectomy syndrome: a survey of 114 patients after biliary tract surgery. Gastroenterologia 1960;93():288-93.	Post cholecystectomy symptoms
20. Gurusamy,Kurinchi Selvan. Education of patients about to undergo laparoscopic cholecystectomy. 2012;(6):n. pag..	Not primary research
21. Havard,T.J. & Scriven,M.W.. Post-cholecystectomy symptoms after laparoscopic cholecystectomy. Ann.R.Coll.Surg. Engl. 1994;76(2):143.	Not primary research
22. Hilkhuysen,G.L.M., Oudhoff,J.P., Rietberg,M., Van der Wal,G.. Waiting for elective surgery: A qualitative analysis and conceptual framework of the consequences of delay. Public Health 2005;119(4):290-93.	Does not identify areas where information and education should be provided
23. Hurley,R.S.. Dietary habits of patients with cholelithiasis: do we need to instruct? J.AM.DIET.ASSOC. 1987;87(2):209-11.	Does not identify areas where information and education should be provided
24. Jaddou,H.Y.. Dietary fats and gallstone disease: Results from a community - Based survey. J.Bahrain Med.Soc. 2003;15(2):67-70.	Does not identify areas where information and education should be provided
25. Jain,A., Davis,P.A., Ahrens,P., Livingstone,J.I.. Is day-case laparoscopic cholecystectomy acceptable to patients? A 5-year study. Minimally Invasive Ther.Allied Technol. 2000;9(1):15-19.	Does not identify areas where information and education should be provided
26. Jorgensen,T.. Gallstones and diet in a Danish population. Scand.J.Gastroenterol. 1989;24(7):821-26.	Does not identify areas where information and education should be provided
27. Kessler,T.M. & Nachbur,B.H.. Patients' perception of preoperative information by interactive computer program-exemplified by cholecystectomy. Patient Education & Counseling 2005;59(2):135-40.	Does not identify areas where information and education should be provided

Ref	Reason for exclusion
28. King,N.K. & Cheeseman,G.A.. Development of procedure-specific patient information sheets for acute abdominal surgery and validation in patients undergoing urgent cholecystectomy or appendicectomy. <i>Int.J.Clin.Pract.</i> 2004;58(6):559-63.	Does not identify areas where information and education should be provided
29. Korolija,D., Sauerland,S., Wood-Dauphinee,S., Abbou,C.C., Eypasch,E., Caballero,M.G., et al. Evaluation of quality of life after laparoscopic surgery: evidence-based guidelines of the European Association for Endoscopic Surgery. <i>Surg.Endosc.</i> 2004;18(6):879-97.	Does not identify areas where information and education should be provided
30. La,Vecchia C., Negri,E., Pagano,R.. Education, prevalence of disease, and frequency of health care utilisation. The 1983 Italian National Health Survey. <i>Journal of Epidemiology & Community Health</i> 1987;41(2):161-65.	Does not identify areas where information and education should be provided
31. Lehmann,H.P., Fleisher,L.A., Lam,J., Frink,B.A.. Patient preferences for early discharge after laparoscopic cholecystectomy. <i>Anesthesia & Analgesia</i> 1999;88(6):1280-85.	Does not identify areas where information and education should be provided
32. Masci,E., Rossi,M., Minoli,G., Mangiavillano,B., Bianchi,G., Colombo,E., et al. Patient satisfaction after endoscopic retrograde cholangiopancreatography for biliary stones: a prospective multicenter study in Lombardy. <i>Journal of Gastroenterology & Hepatology</i> 2009;24(9):1510-15.	Does not identify areas where information and education should be provided
33. McLauchlan,G.J.. Return to work after laparoscopic cholecystectomy. <i>BR.J.SURG.</i> 1995;82(2):239-41.	Does not identify areas where information and education should be provided
34. Oikkonen,M., Purola-Lofstedt,M., Makinen,M.T.. Convalescence in the first week after laparoscopic cholecystectomy: results from a detailed questionnaire on morbidity and recovery of daily activities. <i>Surg.Endosc.</i> 2001;15(1):94-97.	Does not identify areas where information and education should be provided
35. Portincasa,P., Di,Ciaula A., Palmieri,V., Velardi,A., vanBerge-Henegouwen,G.P.. Impaired gallbladder and gastric motility and pathological gastro-oesophageal reflux in gallstone patients. <i>Eur.J.Clin.Invest.</i> 1997;27(8):653-61.	Does not identify areas where information and education should be provided
36. Prat,F., Malak,N.A., Pelletier,G., Buffet,C., Fritsch,J., Choury,A.D., et al. Biliary symptoms and complications more than 8 years after endoscopic sphincterotomy for choledocholithiasis. <i>Gastroenterology</i> 1996;110(3):894-99.	Post cholecystectomy symptoms
37. Quintana,J.M., Arostegui,I., Cabriada,J., Lopez,de Tejada,I. Predictors of improvement in health-related quality of life in patients undergoing cholecystectomy. <i>BR.J.SURG.</i> 2003;90(12):1549-55.	Does not identify areas where information and education should be provided
38. Quintana,J.M., Cabriada,J., Arostegui,I., Oribe,V., Perdigo,L., Varona,M.. Health-related quality of life and appropriateness of cholecystectomy. <i>Ann.Surg.</i> 2005;241(1):110-18.	Does not identify areas where information and education should be provided
39. Ros,E.. Postcholecystectomy symptoms. A prospective study of gall stone patients before and two years after surgery. <i>Gut</i>	Post cholecystectomy symptoms

Ref	Reason for exclusion
1987;28(11):1500-04.	
40. Sand,J. & Pakkala,S.. Twenty to thirty year follow-up after cholecystectomy. Hepato-Gastroenterology 1996;43(9):534-37.	Post cholecystectomy symptoms
41. Sarles,H. & Gerolami,A.. Diet and cholesterol gallstones. A further study. Digestion 1978;17(2):128-34.	Does not identify areas where information and education should be provided
42. Sauter,G.H., Moussavian,A.C., Meyer,G., Steitz,H.O., Parhofer,K.G.. Bowel habits and bile acid malabsorption in the months after cholecystectomy. Am.J.Gastroenterol. 2002;97(7):1732-35.	Post cholecystectomy symptoms
43. Schmidt,M., Hausken,T., Glambek,I., Schleer,C., Eide,G.E.. A 24-year controlled follow-up of patients with silent gallstones showed no long-term risk of symptoms or adverse events leading to cholecystectomy. Scand.J.Gastroenterol. 2011;46(7-8):949-54.	Post cholecystectomy symptoms
44. Stefaniak,T., Vingerhoets,A., Babinska,D., Trus,M., Glowacki,J., Dymecki,D., et al. Psychological factors influencing results of cholecystectomy. Scand.J.Gastroenterol. 2004;39(2):127-32.	Does not identify areas where information and education should be provided
45. Talamini,M.A., Coleman,J., Sauter,P., Stanfield,C.. Outpatient laparoscopic cholecystectomy: patient and nursing perspective. Surgical Laparoscopy, Endoscopy & Percutaneous Techniques 1999;9(5):333-37.	Does not identify areas where information and education should be provided
46. Tamhankar,A.P., Mazari,F., Olubanji,J., Everitt,N.. Postoperative Symptoms, after-care, and return to routine activity after laparoscopic cholecystectomy. Journal of the Society of Laparoendoscopic Surgeons 2010;14(4):484-89.	Post cholecystectomy symptoms
47. Thijs,C. & Knipschild,P.. Is gallstone disease caused by obesity or by dieting? AM.J.EPIDEMIOL. 1992;135(3):274-80.	Does not identify areas where information and education should be provided
48. Varadarajulu,S. & Tamhane,A.. Patient perception of natural orifice transluminal endoscopic surgery as a technique for cholecystectomy. Gastrointest.Endosc. 2008;67(6):854-60.	Does not identify areas where information and education should be provided
49. Venneman,N.G.. Gallstone disease: primary and secondary prevention. Best Pract.Res.Clin.Gastroenterol. 2006;20(6):1063-73.	Not primary research
50. Vetrhus,M., Berhane,T., Soreide,O.. Pain persists in many patients five years after removal of the gallbladder: observations from two randomized controlled trials of symptomatic, noncomplicated gallstone disease and acute cholecystitis. Journal of Gastrointestinal Surgery 2005;9(6):826-31.	Post cholecystectomy symptoms
51. Vetrhus,M., Soreide,O., Eide,G.E., Nesvik,I.. Quality of life and pain in patients with acute cholecystitis. Results of a randomized clinical trial. Scandinavian Journal of Surgery: SJS 2005;94(1):34-39.	Does not identify areas where information and education should be provided
52. Vetrhus,M., Soreide,O., Eide,G.E., Solhaug,J.H., Nesvik,I.. Pain and quality of life in patients with symptomatic, non-complicated gallbladder stones: results of a randomized controlled trial.	Does not identify areas where information and education should be provided

Ref	Reason for exclusion
Scand.J.Gastroenterol. 2004;39(3):270-76.	provided
53. Victorzon,M., Lundin,M., Haglund,C., Roberts,P.J.. Short and long term outcome after laparoscopic cholecystectomy. ANN.CHIR.GYNAECOL. 1999;88(4):259-63.	Post cholecystectomy symptoms
54. Wasowicz-Kemps,D.K., Slootmaker,S.M., Kemps,H.M., Borel-Rinkes,I.H., Biesma,D.H.. Resumption of daily physical activity after day-case laparoscopic cholecystectomy. Surg.Endosc. 2009;23(9):2034-40.	Does not identify areas where information and education should be provided
55. Wilhelm,D., Gillen,S., Wirnhier,H., Kranzfelder,M., Schneider,A., Schmidt,A., Friess,H.. Extended preoperative patient education using a multimedia DVD-impact on patients receiving a laparoscopic cholecystectomy: a randomised controlled trial. Langenbecks Archives of Surgery 2009;394(2):227-33.	Does not identify areas where information and education should be provided
56. Yazdankhah,Kenary A., Yaghoobi,Notash A.,Jr., Nazari,M., Yaghoobi,Notash A., Borjian,A., Afshin,N., et al. Measuring the rate of weight gain and the influential role of diet in patients undergoing elective laparoscopic cholecystectomy: a 6-month follow-up study. International Journal of Food Sciences & Nutrition 2012;63(6):645-48.	Does not identify areas where information and education should be provided

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Excluded studies
