National Institute for Health and Care Excellence

Final

Colorectal cancer (update)

Supplement 2: Health economics

NICE guideline NG151

Health economics

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Final

Developed by the National Guideline Alliance, part of the Royal College of Obstetricians and Gynaecologists

Disclaimer

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or service users. The recommendations in this guideline are not mandatory and the guideline does not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

Local commissioners and/or providers have a responsibility to enable the guideline to be applied when individual health professionals and their patients or service users wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with compliance with those duties.

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Contents

1 Search strategy

2 Health economics global search

3 One global search was conducted for economic evidence.

4 Database: Embase

5 Last searched on: 13/05/2019

#	Search
1	exp colorectal tumor/ or colorectal cancer/ or colon carcinoma/ or colon tumor/ or colon cancer/
2	rectum cancer/ or rectum tumor/ or rectum carcinoma/
3	((colorect* or colo rect*) adj3 (cancer* or neoplas* or oncolog* or malignan* or tumo?r* or carcinoma* or adenocarcinoma*)).tw
4	((colon or colonic) adj3 (cancer* or neoplas* or oncolog* or malignan* or tumo?r* or carcinoma* or adenocarcinoma*)).tw.
5	((rectal* or rectum*) adj3 (cancer* or neoplas* or oncolog* or malignan* or tumo?r* or carcinoma* or adenocarcinoma*)).tw.
6	bowel cancer.ti,ab.
7	or/1-6
8	health economics/
9	exp economic evaluation/
10	exp health care cost/
11	exp fee/
12	budget/
13	funding/
14	budget*.ti,ab.
15	cost*.ti.
16	(economic* or pharmaco?economic*).ti.
17	(price* or pricing*).ti,ab.
18	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
19	(financ* or fee or fees).ti,ab.
20	(value adj2 (money or monetary)).ti,ab.
21	8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20
22	7 and 21
23	limit 22 to (english language and yr="2010 - 2017")

6 Database: Medline

7 Last searched on: 13/05/2019

#	Search
1	exp Colorectal Neoplasms/
2	exp Rectal Neoplasms/
3	((colorect* or colo rect*) adj3 (cancer* or neoplas* or oncolog* or malignan* or tumo?r* or carcinoma* or adenocarcinoma*)).tw.
4	((colon or colonic) adj3 (cancer* or neoplas* or oncolog* or malignan* or tumo?r* or carcinoma* or adenocarcinoma*)).tw.
5	((rectal* or rectum*) adj3 (cancer* or neoplas* or oncolog* or malignan* or tumo?r* or carcinoma* or adenocarcinoma*)).tw
6	bowel cancer.ti,ab.
7	or/1-6
8	exp Economics/
9	Value of life/
10	exp "Costs and Cost Analysis"/
11	exp Economics, Hospital/

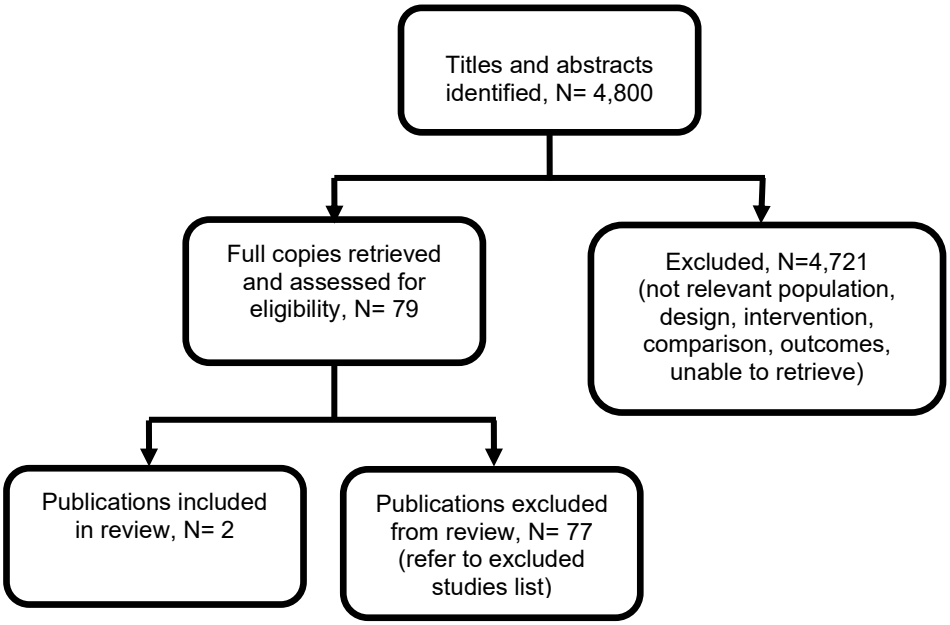
#	Search
12	exp Economics, Medical/
13	Economics, Nursing/
14	Economics, Pharmaceutical/
15	exp "Fees and Charges"/
16	exp Budgets/
17	budget*.ti,ab.
18	cost*.ti.
19	(economic* or pharmaco?economic*).ti.
20	(price* or pricing*).ti,ab.
21	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
22	(financ* or fee or fees).ti,ab
23	(value adj2 (money or monetary)).ti,ab.
24	8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23
25	7 and 24
26	limit 25 to (english language and yr="2010 -Current")

1

Economic evidence study selection

Health economics global search

Figure 1: Flow diagram of economic article selection for global health economic search



1 Excluded studies

2 Health economics global search

Study	Reason for exclusion
Abbott, De, Sohn, Vy, Hanseman, D, Curley, Sa, Cost-effectiveness of simultaneous resection and RFA versus 2-stage hepatectomy for bilobar colorectal liver metastases (Provisional abstract), Journal of Surgical OncologyJ Surg Oncol, epub, 2013	Not cost-utility analysis. Cost-effectiveness analysis using survival as outcome. US setting limits applicability and study would superseded by our own analysis.
Acharya, A., Markar, S. R., Matar, M., Ni, M., Hanna, G. B., Use of Tumor Markers in Gastrointestinal Cancers: Surgeon Perceptions and Cost-Benefit Trade-Off Analysis, Annals of Surgical Oncology, 24, 1165-1173, 2017	Does not match reflect review question as the outcomes are not linked to management.
Al-Hajeili, M. R., Elkhider, F., Tiba, M. H., Cost-effectiveness for extended RAS/RAF testing in metastatic colorectal cancer, Journal of Clinical Oncology. Conference, 33, 2015	Available as abstract only
Alva, M. E., Naranjo, M., Zamora, J., Cost-minimization analysis of panitumumab vs cetuximab as monotherapy for chemo-refractory patients with wt KRAS MCRC in Mexico, Value in Health, 19 (7), A738, 2016	Panitumumab is covered by a NICE TA and will not be considered in the guideline
Attard, Cl, Maroun, Ja, Alloul, K, Grima, Dt, Bernard, Lm, Cost-effectiveness of oxaliplatin in the adjuvant treatment of colon cancer in Canada (Provisional abstract), Current OncologyCurr, 17, 17-24, 2010	Does not match any review question considered in guideline.
Augestad, Km, Norum, J, Dehof, S, Aspevik, R, Ringberg, U, Nestvold, T, Vonen, B, Skrovseth, So, Lindsetmo, Ro, Cost-effectiveness and quality of life in surgeon versus general practitioner-organised colon cancer surveillance: a randomised controlled trial (Provisional abstract), BMJ Open, 3, 2013	Economic aspect is a UK cost minimisation analysis. However, societal perspective is adopted which limits applicability.
Ayvaci, Mu, Shi, J, Alagoz, O, Lubner, Sj, Cost-effectiveness of adjuvant FOLFOX and 5FU/LV chemotherapy for patients with stage II colon cancer (Provisional abstract), Medical Decision MakingMed Decis Making, 33, 521-532, 2013	Does not match any review question considered in guideline.

Bello, B., Umanskiy, K., Ohara, K., Skowron, K., Francis, A., Carter, D., Muldoon, J., Spitz, J., Singer, M., Rotobic versus laparoscopic proctectomy for rectal cancer: Short-term outcomes and cost analysis of a case matched series, Diseases of the Colon and Rectum, 56 (4), e115, 2013	Conference abstract
Bester, L., Wasan, H., Sangro, B., Kennedy, A., Pennington, B., Sennfalt, K., Selective internal radiotherapy (SIRT) using resin yttrium-90 microspheres for chemotherapy-refractory metastatic colorectal cancer: A UK cost-effectiveness analysis, Value in Health, 16 (7), A413, 2013	Available as abstract only (conference)
Blank, P. R., Schwenkglenks, M., Herrmann, R., Moch, H., Szucs, T. D., Cost-effectiveness of novel predictive tests in the treatment of metastatic colorectal cancer: An analysis from a Swiss perspective, Journal of Clinical Oncology. Conference, 28, 2010	Available as abstract only
Blons, H, Rouleau, E, Charrier, N, Chatellier, G, Cote, Jf, Pages, Jc, Fraipont, F, Boyer, Jc, Merlio, Jp, Morel, A, Gorisse, Mc, Cremoux, P, Leroy, K, Milano, G, Ouafik, Lh, Merlin, Jl, Corre, D, Aucouturier, P, Sabourin, Jc, Nowak, F, Frebourg, T, Emile, Jf, Durand-Zaleski, I, Laurent-Puig, P, Performance and cost efficiency of KRAS mutation testing for metastatic colorectal cancer in routine diagnosis: the MOKAECM study, a nationwide experience (Provisional abstract), PLoS ONE [Electronic Resource]PLoS ONE, 8, e68945, 2013	Not cost-utility analysis. Cost-effectiveness analysis using sensitivity as effectiveness measure. French perspective limits applicability to UK.
Butzke, B., Oduncu, F. S., Severin, F., Pfeufer, A., Heinemann, V., Giessen-Jung, C., Stollenwerk, B., Rogowski, W. H., The cost-effectiveness of UGT1A1 genotyping before colorectal cancer treatment with irinotecan from the perspective of the German statutory health insurance, Acta OncologicaActa Oncol, 55, 318-28, 2016	The use of UGT1A1 to identify patients that may have adverse events with irinotecan is not being covered in the guideline
Carlson, J. J., Cost-utility of kras mutation testing prior to treatment of metastatic colorectal cancer with cetuximab monotherapy, Value in Health, 13 (3), A36, 2010	Available as abstract only

Chainitikun, S., Incremental cost-effectiveness analysis of hepatic metastasectomy in patients with advanced colon cancer and liver metastasis, Annals of Oncology. Conference: 41st European Society for Medical Oncology Congress, ESMO, 27, 2016	Thailand is not an OECD country
Chiu, H. C., Hsieh, H. M., Wan, C. L., Tsai, H. L., Wang, J. Y., Cost-effectiveness of mini-laparotomy in patients with colorectal cancers: A propensity scoring matching approach, PLoS ONE [Electronic Resource], 14, e0209970, 2019	Interventions do not match those in the PICO
Chua, T. C., Martin, S., Saxena, A., Liauw, W., Yan, T. D., Zhao, J., Lok, I., Morris, D. L., Evaluation of the cost-effectiveness of cytoreductive surgery and hyperthermic intraperitoneal chemotherapy (peritonectomy) at the St George Hospital peritoneal surface malignancy program, Annals of Surgery, 251, 323-9, 2010	Not cost-utility analysis. Cost-effectiveness analysis but does not consider UK setting
Cosimelli, M., Golfieri, R., Pennington, B., Sennfalt, K., Selective internal radiotherapy (SIRT) using resin yttrium-90 microspheres for chemotherapy-refractory metastatic colorectal cancer: An Italian cost-effectiveness analysis, Value in Health, 16 (7), A409, 2013	Available as abstract only (conference)
Di Cristofaro, L., Scarpa, M., Angriman, I., Perissinotto, E., Ruffolol, C., Fregol, M., Erroil, F., Cost-Effectiveness analysis of postoperative surveillance protocols following radical surgery for colorectal cancer, Acta Chirurgica Belgica, 112, 24-32, 2012	Not cost-utility analysis. Cost-effectiveness analysis but does not consider UK perspective.
Ejaz, A., Semenov, E., Spolverato, G., Kim, Y., Tanner, D., Hundt, J., Pawlik, T. M., Synchronous primary colorectal and liver metastasis: impact of operative approach on clinical outcomes and hospital charges, HPBHpb, 16, 1117-26, 2014	Not cost-effectiveness analysis
Ercolani, G., Cucchetti, A., Cescon, M., Peri, E., Brandi, G., Del Gaudio, M., Ravaioli, M., Zanello, M., Pinna, A. D., Effectiveness and cost-effectiveness of peri-operative versus post-operative chemotherapy for resectable colorectal liver metastases, European Journal of Cancer, 47, 2291-8, 2011	Study compares a strategy of peri and post operative chemotherapy against post operative chemotherapy. This comparison was not considered in the review question.

Erenay, F. S., Alagoz, O., Banerjee, R., Said, A., Cima, R. R., Cost-effectiveness of alternative colonoscopy surveillance strategies to mitigate metachronous colorectal cancer incidence, Cancer., 2016	Not cost-utility analysis. Cost-effectiveness analysis but does not consider UK setting.
Flor-Lorente, B., Baguena, G., Frasson, M., Garcia-Granero, A., Cervantes, A., Sanchiz, V., Pena, A., Espi, A., Esclapez, P., Garcia-Granero, E., Self-expanding metallic stent as a bridge to surgery in the treatment of left colon cancer obstruction: Cost-benefit analysis and oncologic results, Cirugia EspanolaCir Esp, 95, 143-151, 2017	Not cost-utility analysis. Cost-effectiveness analysis but does not consider UK perspective.
Fukuda, T., Shiroiwa, T., Takeuchi, T., Shimozuma, K., Ohashi, Y., Cost-effectiveness analysis of oxliplatin in adjuvant therapy for stage 3 colon cancer patients in Japan, Value in Health, 13 (7), A266, 2010	Available as abstract only.
Goodall, S., Church, J., Cost-effectiveness of colonic stents for the management of malignant large bowel obstruction, Value in Health, 17 (7), A630, 2014	Available as abstract only.
Habib, K., Daniels, S., Lee, M., Proctor, V., Saha, A., Cost implications and oncological outcomes for laparoscopic versus open surgery for right hemicolectomy, Annals of the Royal College of Surgeons of England, 98, 212-5, 2016	Considers surgical techniques in relation to colon cancer whereas guideline question considers rectal cancer.
Hottenrott, C., Robotic versus laparoscopic surgery for rectal cancer and cost-effectiveness analysis, Surgical Endoscopy, 25, 3954-6; author reply 3957-8, 2011	Not cost-effectiveness analysis
Hsiao, F. Y., Mullins, C. D., Onukwugha, E., Pandya, N. B., Seal, B., Hanna, N., Cost-effectiveness of oxaliplatin and irinotecan based combination therapy compared with 5FU/LV for the treatment of us elderly advanced colon cancer patients, Value in Health, 13 (3), A34-A35, 2010	Available as abstract only.
Jensen, Cc, Prasad, Lm, Abcarian, H, Cost-effectiveness of laparoscopic vs open resection for colon and rectal cancer (Provisional abstract), Diseases of the Colon and Rectum, 55, 1017-1023, 2012	Considers cost-effectiveness of rectal and colon cancer grouped together whereas review question considers rectal cancer only.

Junqueira, M., De Campos, M. C., Cardoso, A. P., Von Hohnhorst, P., Fujii, R. K., Cost-effectiveness of cetuximab+folfiri versus folfiri at the public healthcare system in Brazil-the crystal trial RAS subgroup economic perspective, Value in Health, 18 (3), A205, 2015	Available as abstract only.
Katanyoo, K., Chitapanarux, I., Tungkasamit, T., Chakrabandhu, S., Chongthanakorn, M., Jiratrachu, R., Kridakara, A., Townamchai, K., Muangwong, P., Tovanabutra, C., Chomprasert, K., Cost-utility analysis of 5-fluorouracil and capecitabine for adjuvant treatment in locally advanced rectal cancer, Journal of Gastrointestinal Oncology, 9, 425-434, 2018	These drugs are covered by NICE TAs
Keller, D. S., Champagne, B. J., Reynolds, H. L., Jr., Stein, S. L., Delaney, C. P., Cost-effectiveness of laparoscopy in rectal cancer, Diseases of the Colon & RectumDis Colon Rectum, 57, 564-9, 2014	Not cost-utility analysis. Cost-effectiveness study but does not consider UK perspective.
Kim, C. W., Baik, S. H., Roh, Y. H., Kang, J., Hur, H., Min, B. S., Lee, K. Y., Kim, N. K., Cost-effectiveness of robotic surgery for rectal cancer focusing on short-term outcomes: a propensity score-matching analysis, MedicineMedicine (Baltimore), 94, e823, 2015	Not cost-utility analysis. Cost-effectiveness analysis but does not consider UK perspective.
Kim, H., Gill, B., Beriwal, S., Huq, M. S., Roberts, M. S., Smith, K. J., Cost-Effectiveness Analysis of Stereotactic Body Radiation Therapy Compared With Radiofrequency Ablation for Inoperable Colorectal Liver Metastases, International Journal of Radiation Oncology, Biology, Physics, 95, 1175-83, 2016	QALY values are estimated assuming that survival is equivalent. Sensitivity analysis showed this to be a key assumption.
Kimura, M., Usami, E., Iwai, M., Go, M., Teramachi, H., Yoshimura, T., Comparison of cost-effectiveness of regorafenib and trifluridine/tipiracil combination tablet for treating advanced and recurrent colorectal cancer, Molecular & Clinical OncologyMol, 5, 635-640, 2016	Not cost-utility analysis. Cost-effectiveness analysis but does not consider UK perspective.
Kirichenko, V., Thai, N., Morris, W., Heenan, A., Parda, D. S., Cost-effectiveness analysis of radiofrequency ablation (RFA) and stereotactic body radiotherapy (SBRT) in patients with isolated hepatic metastases from colorectal cancer (CRC), Journal of Clinical Oncology. Conference, 34, 2016	Available as abstract only

Lairson, D. R., Parikh, R. C., Cormier, J. N., Chan, W., Du, X. L., Cost-utility analysis of chemotherapy regimens in elderly patients with stage III colon cancer, PharmacoEconomics, 32, 1005-13, 2014	Does not match any review questions considered in the guideline.
Lee, L., Saleem, A., Landry, T., Latimer, E., Chaudhury, P., Feldman, L. S., Cost effectiveness of mesh prophylaxis to prevent parastomal hernia in patients undergoing permanent colostomy for rectal cancer, Journal of the American College of Surgeons, 218, 82-91, 2014	Does not match any review questions considered in guideline
Lee, Z., Chia, C., Teo, M., Is cytoreductive surgery and hyperthermic intraperitoneal chemotherapy cost-effective for metastatic colorectal cancer?, Annals of Surgical Oncology, 1), S77, 2016	Not cost-utility analysis. Cost-effectiveness analysis but of limited relevance as it does not consider UK perspective.
Lee, Z., Teo, C. C. M., Chia, C. S. L., Wong, J. F. S., Is cytoreductive surgery and hyperthermic intraperitoneal chemotherapy more cost-effective than palliative chemotherapy in the management of colorectal peritoneal metastases?, Annals of Surgical Oncology, 1), S81, 2015	Available as abstract only
Lee-Ying, R. M., Kennecke, H. F., Nguyen, L., Cheung, W. Y., Cost-effectiveness of surveillance after curative resection (CR) of metastatic colorectal cancer (CRC), Journal of Clinical Oncology, Conference, 2017 Gastrointestinal Cancers Symposium. United States. 35 (4 Supplement 1) (no pagination), 2017	The interventions do not match those in the PICO
Lester-Coll, N. H., Decker, R. H., Yu, J. B., Cost-effectiveness analysis of stereotactic body radiation therapy for pulmonary oligometastases, International Journal of Radiation Oncology Biology Physics, 1), S585-S586, 2014	Available as abstract only
Lester-Coll, N. H., Rutter, C. E., Bledsoe, T. J., Goldberg, S. B., Decker, R. H., Yu, J. B., Cost-Effectiveness of Surgery, Stereotactic Body Radiation Therapy, and Systemic Therapy for Pulmonary Oligometastases, International Journal of Radiation Oncology, Biology, Physics, 95, 663-72, 2016	Study has limited applicability (US) and also does not adequately report sensitivity analysis (no PSA results are reported and only one deterministic sensitivity analysis is presented for colon cancer)

Manasek, V., Bezdek, K., Foltys, A., Klos, K., Smitka, J., Smehlik, D., The Impact of High Protein Nutritional Support on Clinical Outcomes and Treatment Costs of Patients with Colorectal Cancer, Klinicka OnkologieKlin, 29, 351-357, 2016	Not cost-effectiveness analysis. Cost study but does not consider UK perspective
Manca, A., Asseburg, C., Bravo Vergel, Y., Seymour, M. T., Meade, A., Stephens, R., Parmar, M., Sculpher, M. J., The cost-effectiveness of different chemotherapy strategies for patients with poor prognosis advanced colorectal cancer (MRC FOCUS), Value in Health, 15, 22-31, 2012	Not specific to patients with RASmutant colorectal cancer.
Mant, D., Gray, A., Pugh, S., Campbell, H., George, S., Fuller, A., Shinkins, B., Corkhill, A., Mellor, J., Dixon, E., Little, L., Perera-Salazar, R., Primrose, J., A randomised controlled trial to assess the cost-effectiveness of intensive versus no scheduled follow-up in patients who have undergone resection for colorectal cancer with curative intent, Health Technology Assessment, 21, 2017	Interventions do not match those in the PICO
Mathurin, K., Beauchemin, C., Lachaine, J., Development of a global economic model to evaluate the cost-effectiveness of targeted treatments using companion diagnostics in advanced/metastatic cancer treatment, Value in Health, 17 (7), A561, 2014	Available as abstract only.
Michalopoulos, N. V., Theodoropoulos, G. E., Stamopoulos, P., Sergentanis, T. N., Memos, N., Tsamis, D., Flessas, I., Menenakos, E., Kontodimopoulos, N., Zografos, G. C., A cost-utility analysis of laparoscopic vs open treatment of colorectal cancer in a public hospital of the Greek National Health System, Journal of B.U.On.J, 18, 86-97, 2013	Does not match guideline question on surgical technique which considers rectal cancer only.
Mobaraki, A, Ohno, T, Yamada, S, Sakurai, H, Nakano, T, Cost-effectiveness of carbon ion radiation therapy for locally recurrent rectal cancer (Provisional abstract), Cancer ScienceCancer Sci, 101, 1834-1839, 2010	Not cost-utility analysis. Cost-effectiveness analysis but considers non-UK setting
Mobaraki, A., Ohno, T., Yamada, S., Sakurai, H., Nakano, T., Cost-effectiveness of carbon ion radiation therapy for locally recurrent rectal cancer, Cancer Science, 101, 1834-9, 2010	Not cost-utility analysis. Cost-effectiveness analysis but does not consider UK perspective.

Mullins, C. D., Hsiao, F. Y., Onukwugha, E., Pandya, N. B., Hanna, N., Comparative and cost-effectiveness of oxaliplatin-based or irinotecan-based regimens compared with 5-fluorouracil/leucovorin alone among US elderly stage IV colon cancer patients, Cancer, 118, 3173-81, 2012	Does not match any review questions considered in the guideline.
Mullins, C. D., Woldemichael, A., Zheng, Z., Onukwugha, E., Seal, B. S., Hanna, N., Does first-line treatment impact the cost-effectiveness of second-line treatment for elderly metastatic colon cancer patients?, Journal of Clinical Oncology. Conference, 32, 2014	Available as abstract only.
Mullins, Cd, Hsiao, Fy, Onukwugha, E, Pandya, Nb, Hanna, N, Comparative and cost-effectiveness of oxaliplatin-based or irinotecan-based regimens compared with 5-fluorouracil/leucovorin alone among US elderly stage IV colon cancer patients (Provisional abstract), CancerCancer, 118, 3173-3181, 2012	Does not match any review questions considered in the guideline.
Nasciben, V., Saggia, M. G., Open versus laparoscopic procedures for colectomy surgery for patients with colon rectal cancer: A cost effectiveness analysis, under the brazilian private payer perspective, Value in Health, 13 (3), A36, 2010	Available as abstract only
Niedersuess-Beke, D., Schiffinger, M., Mader, R., Economic impact of biomarker-based anti EGFR therapies in metastatic colorectal cancer in Austria, Annals of Oncology, 26, iv68, 2015	Not cost-utility analysis. Cost-effectiveness analysis but does not consider UK perspective.
Paterson, R. J., Randall, K., Day, F., A cost model of capecitabine versus continuous infusional 5-fluorouracil (CI5FU) as chemosensitization during long course radiotherapy in the neoadjuvant treatment of rectal cancer: From the perspective of the Australian health care system, Journal of Clinical Oncology. Conference, 33, 2015	Available as abstract only
Pennington, B., Akehurst, R., Wasan, H., Sangro, B., Kennedy, A. S., Sennfalt, K., Bester, L., Cost-effectiveness of selective internal radiation therapy using yttrium-90 resin microspheres in treating patients with inoperable colorectal liver metastases in the UK, Journal of Medical Economics, 18, 797-804, 2015	Study considers patients refractory to chemotherapy which does not match population considered in review question.

Pennington, B., Bester, L., Wasan, H., Sangro, B., Kennedy, A. S., Sennfalt, K., Selective internal radiotherapy (SIRT) using resin yttrium-90 microspheres for chemotherapy-refractory metastatic colorectal cancer: A UK cost-effectiveness analysis, CardioVascular and Interventional Radiology, 1), S319, 2014	Available as abstract only
Pennington, B., Sennfalt, K., Cosimelli, M., Golfieri, R., Selective internal radiotherapy (SIRT) using resin yttrium-90 microspheres for chemotherapy-refractory metastatic colorectal cancer: An Italian cost-effectiveness analysis, CardioVascular and Interventional Radiology, 1), S319, 2014	Available as abstract only
Petz, W., Andreoni, B., Bertani, E., Bislenghi, G., Uccelli, F., Bianchi, P. P., A cost effectiveness analysis of open and robotic surgery in the treatment of rectal cancer, Surgical Endoscopy and Other Interventional Techniques, 28, S11, 2014	Conference abstract
Riesco-Martinez, M. C., Berry, S. R., Ko, Y. J., Mittmann, N., Giotis, A., Lien, K., Wong, W. W., Chan, K. K., Cost-Effectiveness Analysis of Different Sequences of the Use of Epidermal Growth Factor Receptor Inhibitors for Wild-Type KRAS Unresectable Metastatic Colorectal Cancer, Journal of oncology practice/American Society of Clinical OncologyJ Oncol Pract, 12, e710-23, 2016	Does not match review question considered in the guideline.
Roberts, K. J., Sutton, A. J., Prasad, K. R., Toogood, G. J., Lodge, J. P., Cost-utility analysis of operative versus non-operative treatment for colorectal liver metastases, British Journal of Surgery, 102, 388-98, 2015	Study compares surgical resection with palliative care which is not a comparison considered in the guideline.
Shiroiwa, T, Takeuchi, T, Fukuda, T, Shimozuma, K, Ohashi, Y, Cost-effectiveness of adjuvant FOLFOX therapy for stage III colon cancer in Japan based on the MOSAIC trial (Provisional abstract), Value in Health, 15, 255-260, 2012	Does not match any review question considered in guideline.
Shiroiwa, T., Motoo, Y., Tsutani, K., Cost-effectiveness analysis of K-ras testing and cetuximab for metastatic colorectal cancer in Japan, Value in Health, 13 (7), A513, 2010	Available as abstract only

Shiroiwa, T., Takeuchi, T., Fukuda, T., Shimozuma, K., Ohashi, Y., Cost-effectiveness of adjuvant FOLFOX therapy for stage III colon cancer in Japan based on the MOSAIC trial, Value in Health, 15, 255-60, 2012	Does not match any review question considered in guideline.
Silva-Velazco, J., Dietz, D. W., Stocchi, L., Costedio, M., Gorgun, E., Kalady, M. F., Kessler, H., Lavery, I. C., Remzi, F. H., Considering Value in Rectal Cancer Surgery: An Analysis of Costs and Outcomes Based on the Open, Laparoscopic, and Robotic Approach for Proctectomy, Annals of Surgery, 265, 960-968, 2017	Not cost-utility analysis. US cost study which is of limited applicability to UK setting.
Soni, A., Aspinall, S. L., Zhao, X., Good, C. B., Cunningham, F. E., Chatta, G., Passero, V., Smith, K. J., Cost-Effectiveness Analysis of Adjuvant Stage III Colon Cancer Treatment at Veterans Affairs Medical Centers, Oncology ResearchOncol Res, 22, 311-9, 2014	Does not match any review question considered in guideline.
Taieb, J., Pennington, B., Sennfalt, K., Cost effectiveness of selective internal radiation therapy (SIRT) using yttrium-90 resin microspheres for the treatment of patients with inoperable colorectal liver metastases in France, Annals of Oncology, 26, iv67, 2015	Conference abstract
Van Gils, C. W. M., De Groot, S., Redekop, W. K., Koopman, M., Punt, C. J. A., Uyl-De Groot, C. A., Real-world cost-effectiveness of oxaliplatin in stage III colon cancer: A synthesis of clinical trial and daily practice evidence, PharmacoEconomics, 31, 703-718, 2013	Does not match any review questions considered in the guideline
Van Gils, C., De Groot, S., Redekop, W., Uyl-De Groot, C., Real-world cost-effectiveness of oxaliplatin in stage III colon cancer: A synthesis of trial data with data from daily clinical practice, Value in Health, 13 (7), A239, 2010	Available as abstract only
Vasudevan, V., Reusche, R., Wallace, H., Kaza, S., Robotic colorectal surgery costs are comparable to laparoscopic colorectal surgery: A costs and outcome analysis, Surgical Endoscopy and Other Interventional Techniques, 29, S544, 2015	Not cost-effectiveness analysis

Verberne, C. J., Wiggers, T., Grossmann, I., de Bock, G. H., Vermeulen, K. M., Cost-effectiveness of a carcinoembryonic antigen (CEA) based follow-up programme for colorectal cancer (the CEA Watch trial), Colorectal DiseaseColorectal Dis, 18, O91-O96, 2016	Not cost-utility analysis. Cost-effectiveness analysis but not UK based and so applicability is limited.
Wanis, K. N., Maleyeff, L., VanKoughnett, J. M., Colquhoun, P., Ott, M., Leslie, K., Hernandez-Alejandro, R., Kim, J. J., Health and Economic Impact of Intensive Surveillance for Distant Recurrence After Curative Treatment of Colon Cancer: A Mathematical Modeling Study, Diseases of the Colon & Rectum, 21, 21, 2019	Interventions do not match those in the PICO
Widdison, A. L., Barns, V., Prescott, O., Pollard, A., A cost-minimization analysis of first intention laparoscopic compared to open right hemicolectomy for colon cancer, Annals of Medicine & SurgeryAnn Med Surg (Lond), 5, 23-8, 2016	Does not match any review questions considered in the guideline
Winterhalder, R., Delmore, G., Hardegger, T., Urspruch, A., Hieke, K., Cost comparison: Capecitabine 1 oxaliplatin (XELOX) vs 5-fu/lv 1 oxaliplatin (FOLFOX4) in the adjuvant treatment of patients with colon cancer (ACC), Annals of Oncology, 21, viii201-viii202, 2010	Available as abstract only
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