**Supplemental File 1: Key for Literature Search Strategy for the ARS Appropriate Use Criteria - Extrahepatic Cholangiocarcinoma**

Database: Ovid MEDLINE(R) and Epub Ahead of Print, In-Process, In-Data-Review & Other Non-Indexed Citations, Daily and Versions(R) <1946 to January 28, 2022>

Search Strategy:

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1     ("18805651" or "9409582" or "10836374" or "16135931" or "25964250" or "30922733" or "22529261" or "12365016" or "29488187" or "21387295" or "32097164" or "22504095" or "29064885" or "22749003" or "21115233").mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (15)

2     exp \*Bile Duct Neoplasms/ or exp \*Klatskin Tumor/ or exp \*Cholangiocarcinoma/ or exp \*Biliary Tract Neoplasms/ or (exp \*neoplasms/ and exp \*Bile Ducts, Extrahepatic/) (29416)

3     2 not (gallbladder adj3 (cancer\* or carcinoma\* or neoplas\* or adenocarcinoma\* or malignan\* or tumor\* or tumour\*)).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (20821)

4     (klatskin\* or ((extrahepatic\* or hilar\* or peri-hilar\* or perihilar\* or biliar\*) adj3 (cancer\* or carcinoma\* or neoplas\* or adenocarcinoma\* or cholangiocarcinom\*))).ti,ab,kf. (9350)

5     ((pancrea\* or intrahepatic\* or ampulla\* or hepatocellular\*) adj3 (cancer\* or carcinoma\* or neoplas\* or adenocarcinoma\* or malignan\* or tumor\* or tumour\* or cholangiocarcinom\*)).ti,ab,kf. (200197)

6     (3 or 4) not 5 (16398)

7     1 and 6 (14)

8     1 not 7 (1)

9     (hepatectomy\* or resect\* or unresect\* or surg\* or opera\* or inopera\* or transplant\* or OLT\* or pancreaticoduodenectom\* or whipple\* or electroporat\* or IRE\*).ti,ab,kf. (3632459)

10     exp \*hepatectomy/ or exp \*liver transplantation/ or exp \*lymph node excision/ (89157)

11     su.fs. (2133882)

12     9 or 10 or 11 (4483082)

13     1 and 12 (15)

14     (anticancer\* or antineoplas\* or antitumo\* or radiotherap\* or radiat\* or irradiat\* or chemoradi\* or chemotherap\* or adjuvant\* or neoadjuvant\* or immunotherap\* or immune checkpoint inhibitor\*).ti,ab,kf. (1467474)

15     exp \*Radiotherapy/ (108757)

16     exp \*antineoplastic agents/ or exp \*antineoplastic protocols/ (759689)

17     exp \*combined modality therapy/ (46879)

18     rt.fs. (201966)

19     th.fs. (2016755)

20     or/14-19 (3788431)

21     1 and 20 (14)

22     1 not 21 (1)

23     6 and 12 and 20 (2346)

24     1 and 23 (13)

25     meta-analys\*.ti,ab,kf. (221429)

26     limit 23 to "review articles" (457)

27     25 and 26 (21)

28     (23 not 26) or 27 (1910)

29     limit 28 to case reports (467)

30     "case report\*".mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (2334652)

31     28 not (29 or 30) (1421)

32     limit 31 to english language (1245)

33     limit 32 to yr="2012 -Current" (691)

**Search Strategy Key**

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| --- | --- |
| Line(s) | Purpose |
| 1 | Validation Set |
| 2-6\* | P = Population\* |
| 7-8 | Validation set check |
| 9-12 | I = Intervention (i.e. description of surgical status) |
| 13 | Validation set check |
| 14-20 | C = Comparative group |
| 21-22 | Validation set check |
| 23 | Combining P & I & C |
| 24 | Validation set check |
| 25-28 | Code to eliminate review articles including systematic reviews, but keeping meta-analyses |
| 29-31 | Eliminating case reports |
| 32 & 33 | Final screening criteria for English language & requirement for last decade only |