# 實證醫學月會
# 胃腸科病例討論
# Evidence-Based Medicine

102/04/01

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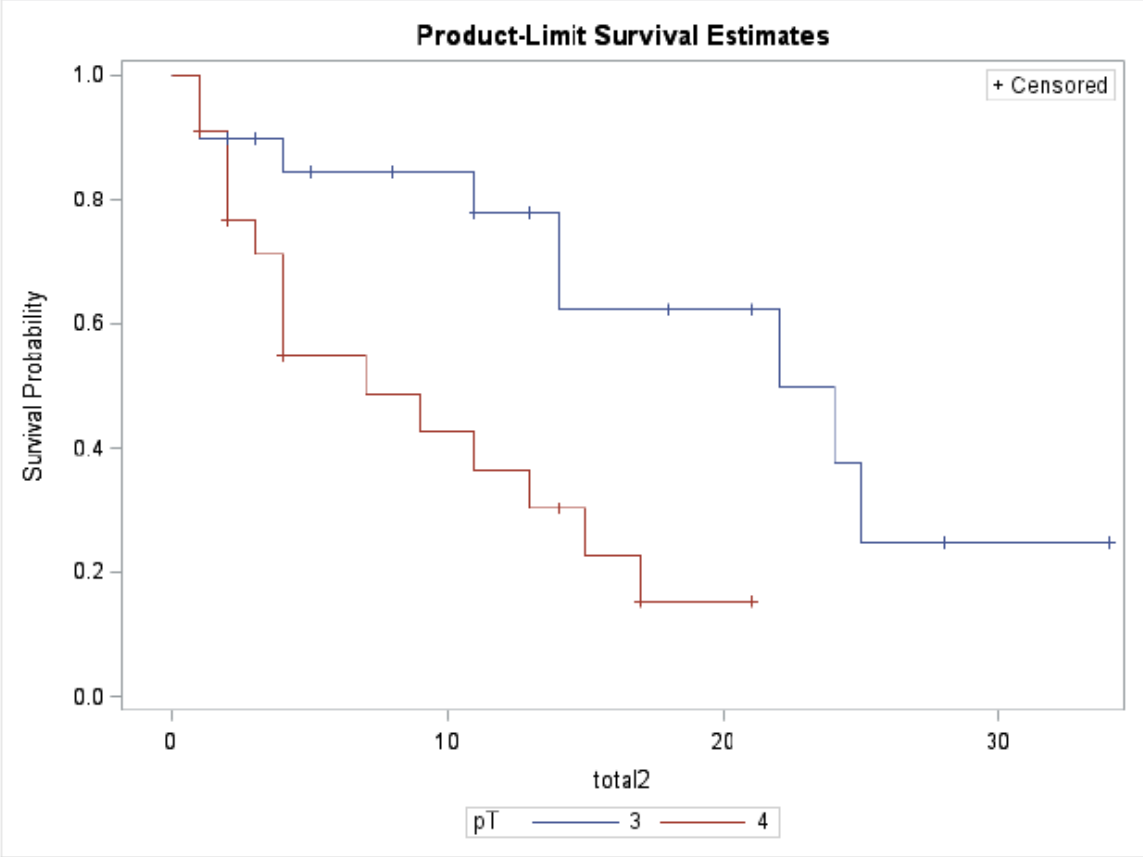
# 臨床情境 (Clinical Scenario)

- 42 patient with colon cancer, T3-4NxMo, in recent 3 years
- All pT3 (N=20) vs. pT4 (N=22): regardless of initial radiological T stage (cT)




OS (from op date to death or censor; event=12, censor=11):

- median overall survival: pT4: 8 months, pT3: 2 years
- Log-Rank P=0.02;  Hazard ratio=4.57, P=0.04

## TNM staging for colorectal cancer, 7th edition

| | |
|---|---|
| **Primary tumor (T)** | |
| TX | Primary tumor cannot be assessed |
| T0 | No evidence of primary tumor |
| Tis | Carcinoma in situ: intraepithelial or invasion of lamina propria* |
| T1 | Tumor invades submucosa |
| T2 | Tumor invades muscularis propria |
| T3 | Tumor invades through the muscularis propria into pericolorectal tissues |
| T4a | Tumor penetrates to the surface of the visceral peritoneum• |
| T4b | Tumor directly invades or is adherent to other organs or structures•Δ |
| **Regional lymph node (N)◇** | |
| NX | Regional lymph nodes cannot be assessed |
| N0 | No regional lymph node metastasis |
| N1 | Metastasis in 1-3 regional lymph nodes |
| N1a | Metastasis in one regional lymph node |
| N1b | Metastasis in 2-3 regional lymph nodes |
| N1c | Tumor deposit(s) in the subserosa, mesentery, or nonperitonealized pericolic or perirectal tissues without regional nodal metastasis |
| N2 | Metastasis in four or more regional lymph nodes |
| N2a | Metastasis in 4-6 regional lymph nodes |
| N2b | Metastasis in seven or more regional lymph nodes |
| **Distant metastasis (M)** | |
| M0 | No distant metastasis |
| M1 | Distant metastasis |
| M1a | Metastasis confined to one organ or site (eg, liver, lung, ovary, nonregional node) |
| M1b | Metastases in more than one organ/site or the peritoneum |

# How to treat localized advanced operable colon cancer?

- Multivisceral resection
  - an appropriate option for locally advanced (ie, $T_4$), potentially resectable primary colon cancers
- Adjuvant chemotherapy
  - eradicate micrometastases
  - reducing the likelihood of disease recurrence
  - increasing the cure rate
- Neoadjuvant chemoradiotherapy or chemotherapy ?

# Foreground question

- Is neoadjuvant chemotherapy helpful in patients with locally advanced operable colon cancer?

# EBM的步驟

- Asking
  - 將病人的問題寫成PICO
- Acquire
  - 找資料來回答問題
- Appraisal
  - 嚴格評讀文獻
- Apply
  - 是否可應用到病人身上

# 提出foreground questions

| 問題描述及提出此問題的理由：<br>Is neoadjuvant chemotherapy helpful in patients with locally advanced colon cancer？ | |
|---|---|
| P<br>Patient/Problem | Patient with locally advanced operable colon cancer |
| I<br>Intervention | neoadjuvant chemotherapy |
| C<br>Comparison | without neoadjuvant chemotherapy |
| O<br>Outcome | Tumor clearance rates and survival rate |
| T<br>Time | Not measured |

# EBM的步驟

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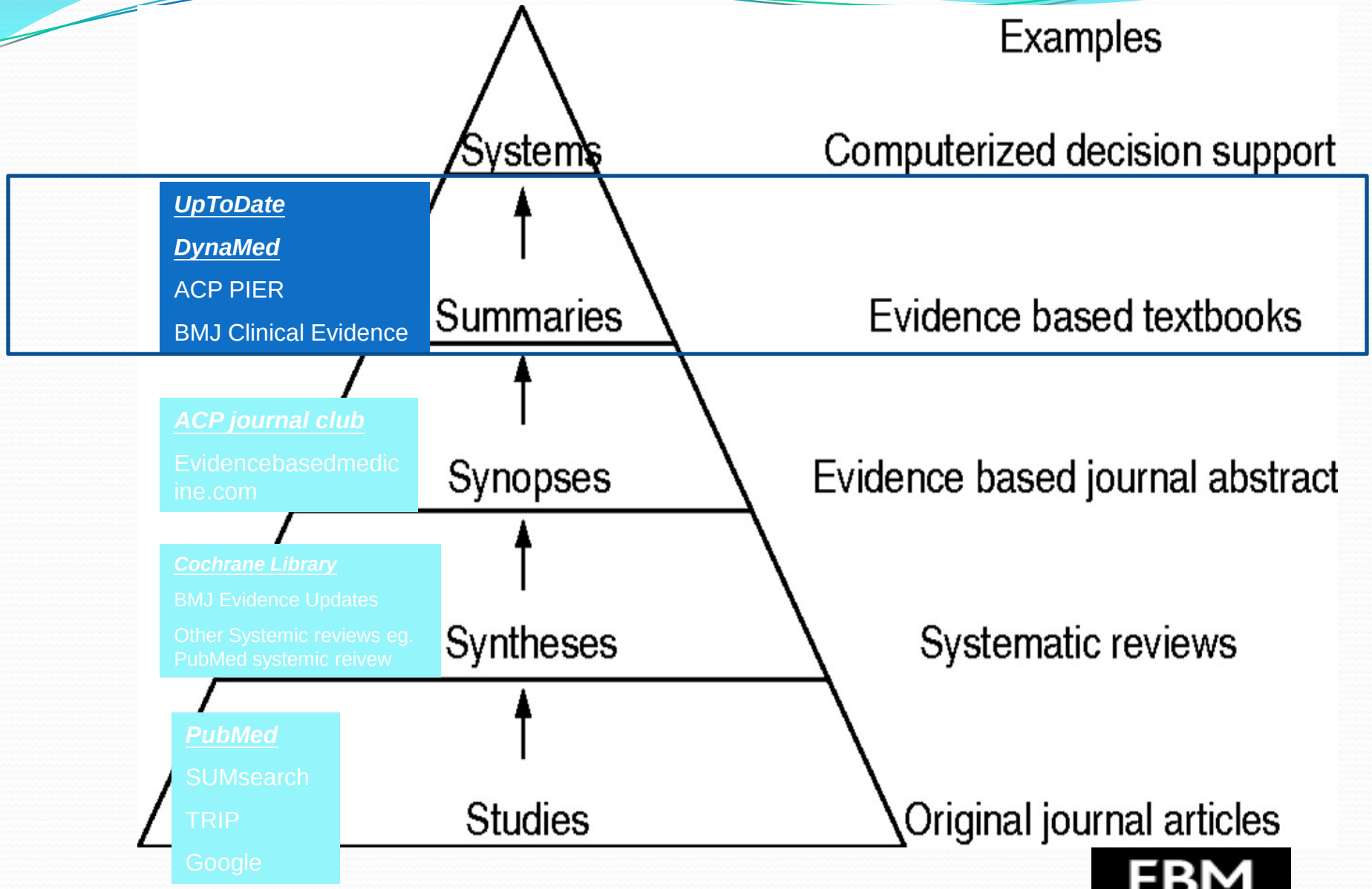
# The "5S" levels of organisation of evidence from healthcare research

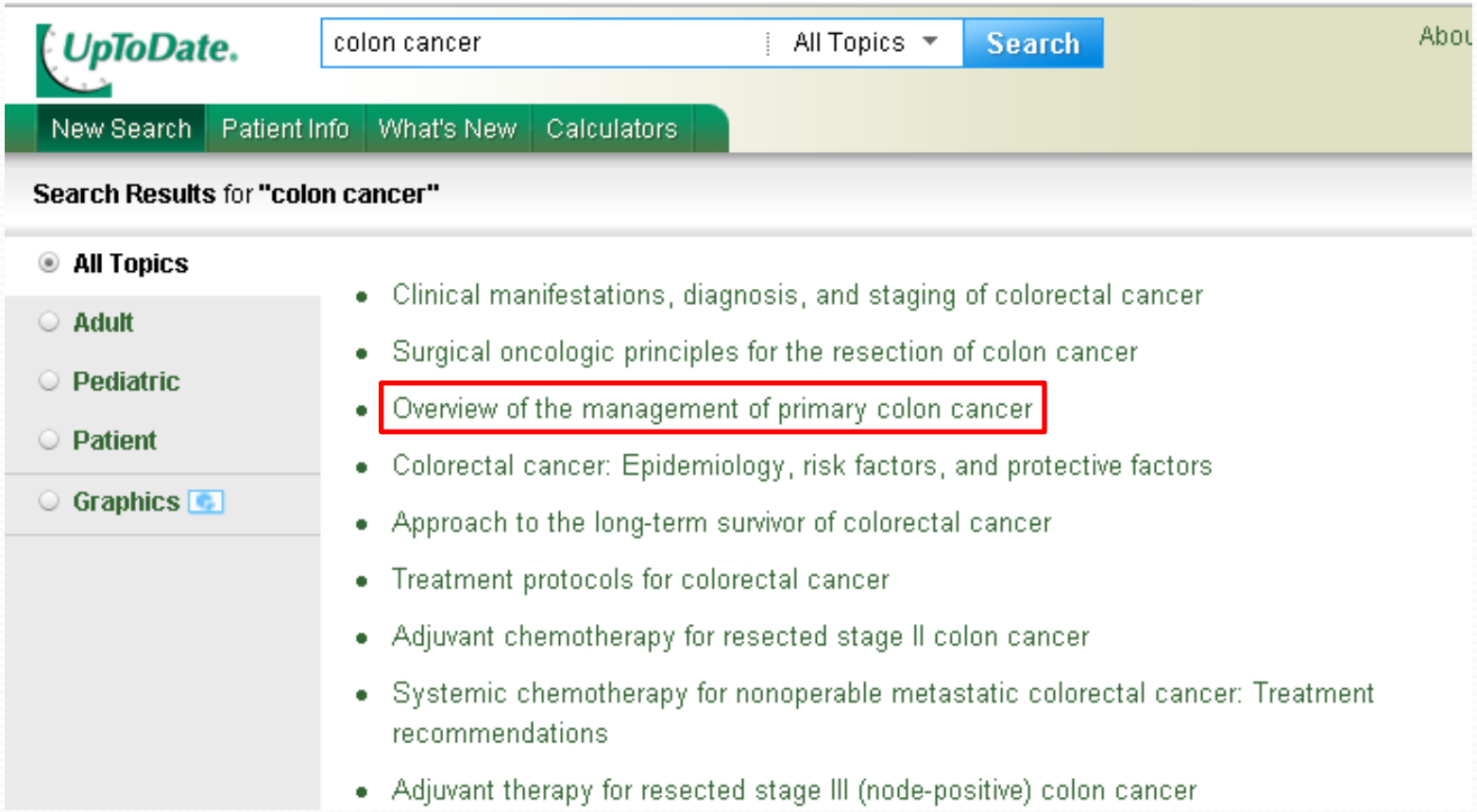
Brian Haynes, R Evid Based Med 2006;11:162-164




EBM ONLINE

# Summary --搜尋UpToDate

- Key word : colon cancer
- Search result:



- Neoadjuvant chemoradiotherapy or chemotherapy
  - Neoadjuvant (preoperative) chemoradiotherapy rather than initial surgery is a common approach for locally advanced **rectal** cancer
  - But for locally advanced colon cancer invading into adjacent organs
    - the data addressing benefit in patients with colon primaries are limited to isolated case reports and two small case series
    - no consensus as to which patients are suitable for this approach
  - concurrently administered chemotherapy
    - provides synergistic antitumor activity
    - also increases treatment-related toxicity
      - may be prohibitive if the radiation treatment volume includes a substantial amount of bowel

- patients with potentially resectable disease
  - should undergo multivisceral resection rather than upfront chemoradiotherapy, if they are surgical candidates
- Consensus-based guidelines from the NCCN suggest
  - patients with locally unresectable colon cancer or who are medically inoperable

  be given chemotherapy for advanced disease
- The utility of preoperative chemotherapy for patients with locally advanced primary tumors is unclear
  - this approach is being directly studied in the phase III FOxTROT trial

# 搜尋Dynamed

- Key word : colon cancer
- Search result:

**Colorectal cancer**

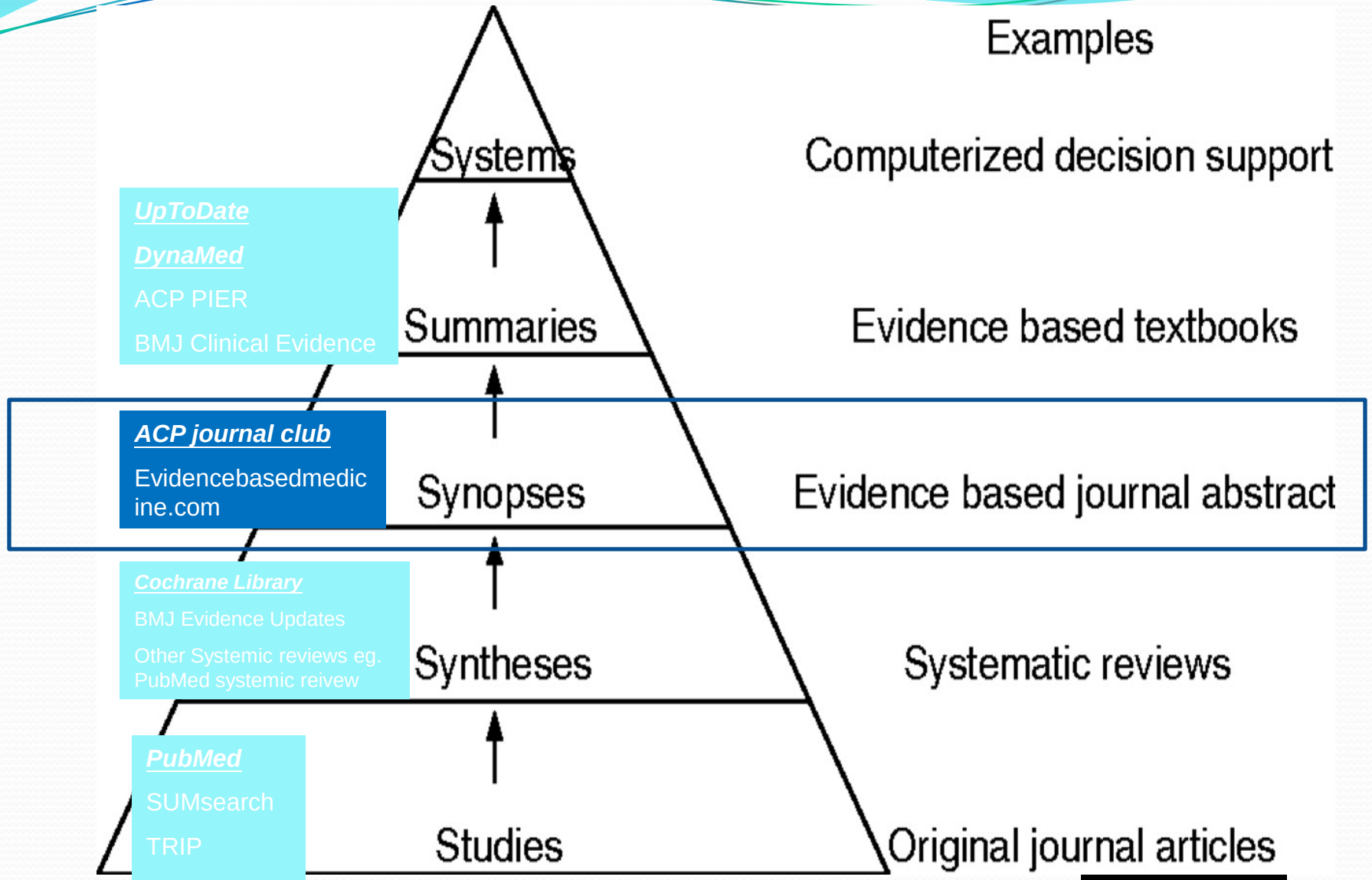
**Treatment overview:**

- nonmetastatic colon cancer
  - wide surgical resection and anastomosis is standard treatment
  - adjuvant chemotherapy is recommended for stage III colon cancer (ESMO Level I, Grade A) and stage II colon cancer with high risk features (ESMO Level II, Grade B)
    - preferred chemotherapy includes oxaliplatin and 5-fluorouracil (5-FU)/leucovorin
    - alternatives are monotherapy with 5-FU/leucovorin or oral capecitabine
  - intensive follow-up required (ESMO Level I, Grade A) and associated with improved survival after curative surgery for colorectal cancer (level 2 [mid-level] evidence)

- neoadjuvant chemotherapy was not mentioned

# The "5S" levels of organisation of evidence from healthcare research

**Brian Haynes, R Evid Based Med 2006;11:162-164**




EBM ONLINE

# 搜尋Synopses ，ACP Journal Club

- **關鍵字：** colon cancer, chemotherapy, neoadjuvant chemotherapy

**Search ACP Journal Club**

colon cancer, chemotherapy | Search

Search Help

Results **1** - **6** of about **6** for **colon cancer, chemotherapy**.

2007 - Adjuvant **chemotherapy** increased survival in **colorectal ...**

2007 - Cetuximab improved overall survival in **colorectal ...**

2006 - Review: Prophylactic interventions reduce oral ...

2012 - Semuloparin reduced venous thromboembolism in ...

2006 - Anastrozole had a better risk-benefit profile than ...

2007 - Concomitant VTE increased risks for mortality and ...

**Search ACP Journal Club**

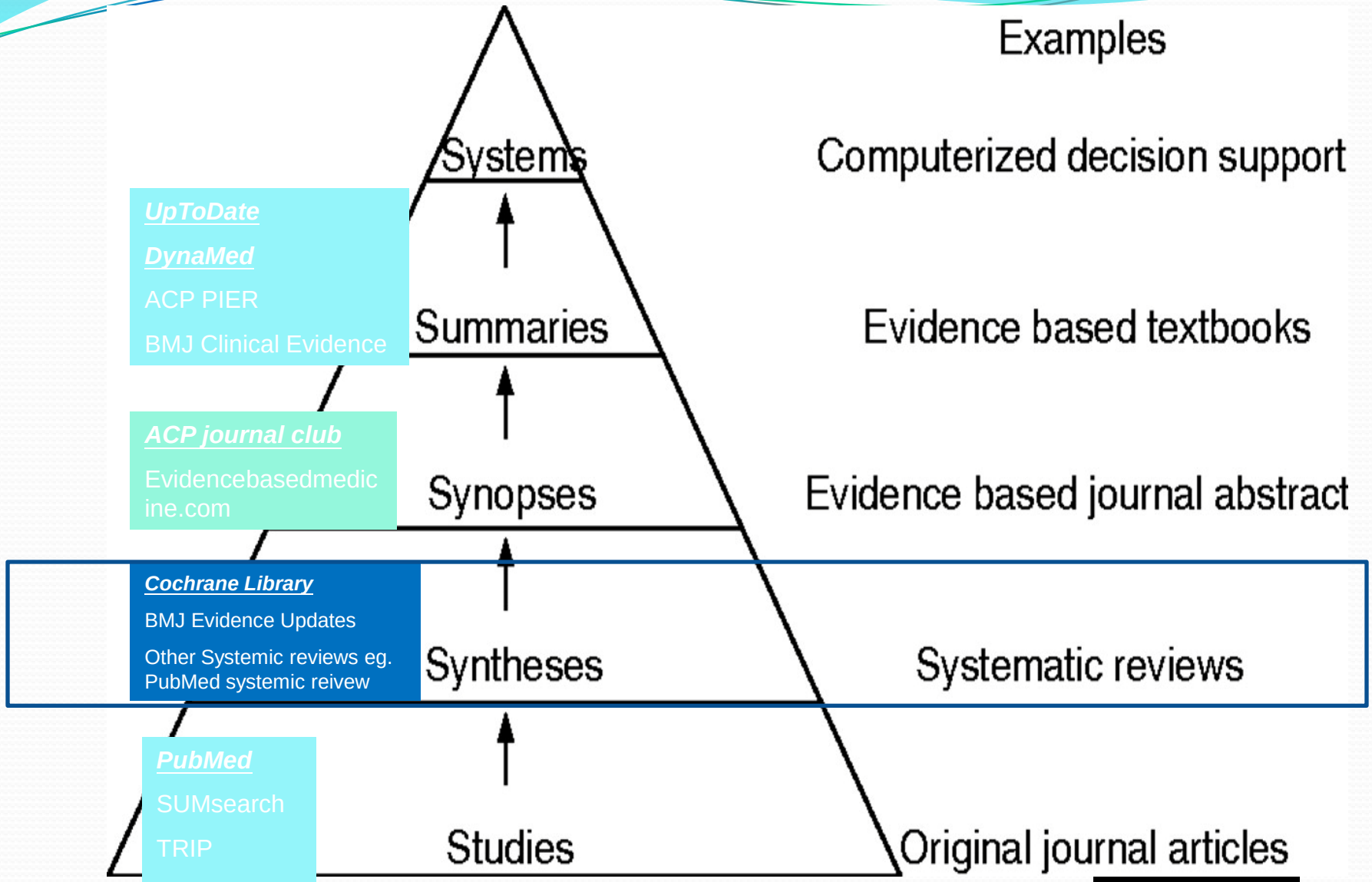
colon cancer, neoadjuvant chemothera | Search

Search Help

**No matches.**

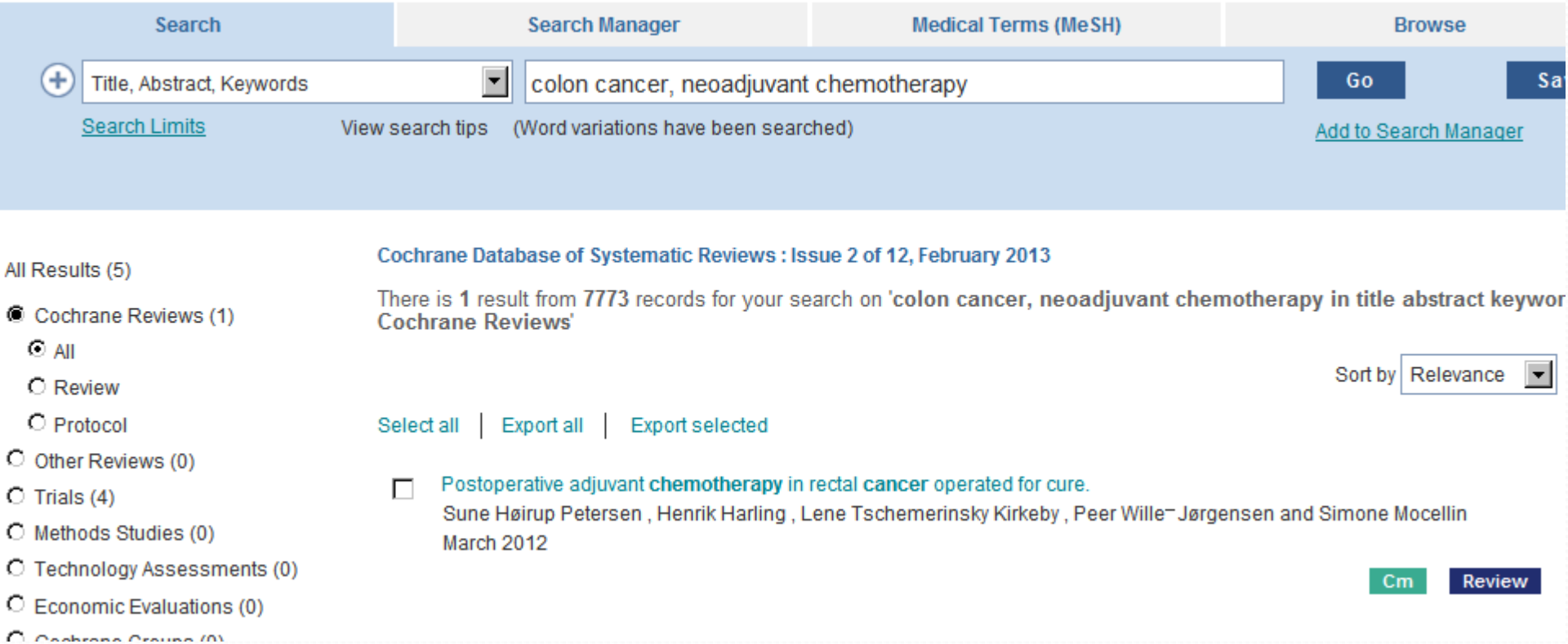
# The "5S" levels of organisation of evidence from healthcare research

**Brian Haynes, R Evid Based Med 2006;11:162-164**



# 搜尋Cochrane Library

- **關鍵字:** colon cancer, neoadjuvant chemotherapy



# 搜尋Cochrane Library

- **關鍵字:** colon cancer, neoadjuvant chemotherapy


Title, Abstract, Keywords | colon cancer, neoadjuvant chemotherapy | Go

Search Limits | View search tips | (Word variations have been searched) | Add to Search Manager

All Results (5)

- Cochrane Reviews (1)
  - All
  - Review
  - Protocol
- Other Reviews (0)
- Trials (4)
- Methods Studies (0)
- Technology Assessments (0)
- Economic Evaluations (0)
- Cochrane Groups (0)

Cochrane Central Register of Controlled Trials : Issue 2 of 12, February 2013

There are **4** results from **683114** records for your search on '**colon cancer, neoadjuvant chemotherapy in title abstract keywords** in **Trials**'

Select all | Export all | Export selected

Selective augmentations of intratumoral 5‐fluorouracil concentration by local immunotherapy with OK‐432 and fibrinogen.
Amano M , Sekimoto M , Monden T , Tomita N , Ohue M , Haba A , Sakita I , Tamaki Y and Monden M
Diseases of the colon and rectum, 2000, 43(3), 402

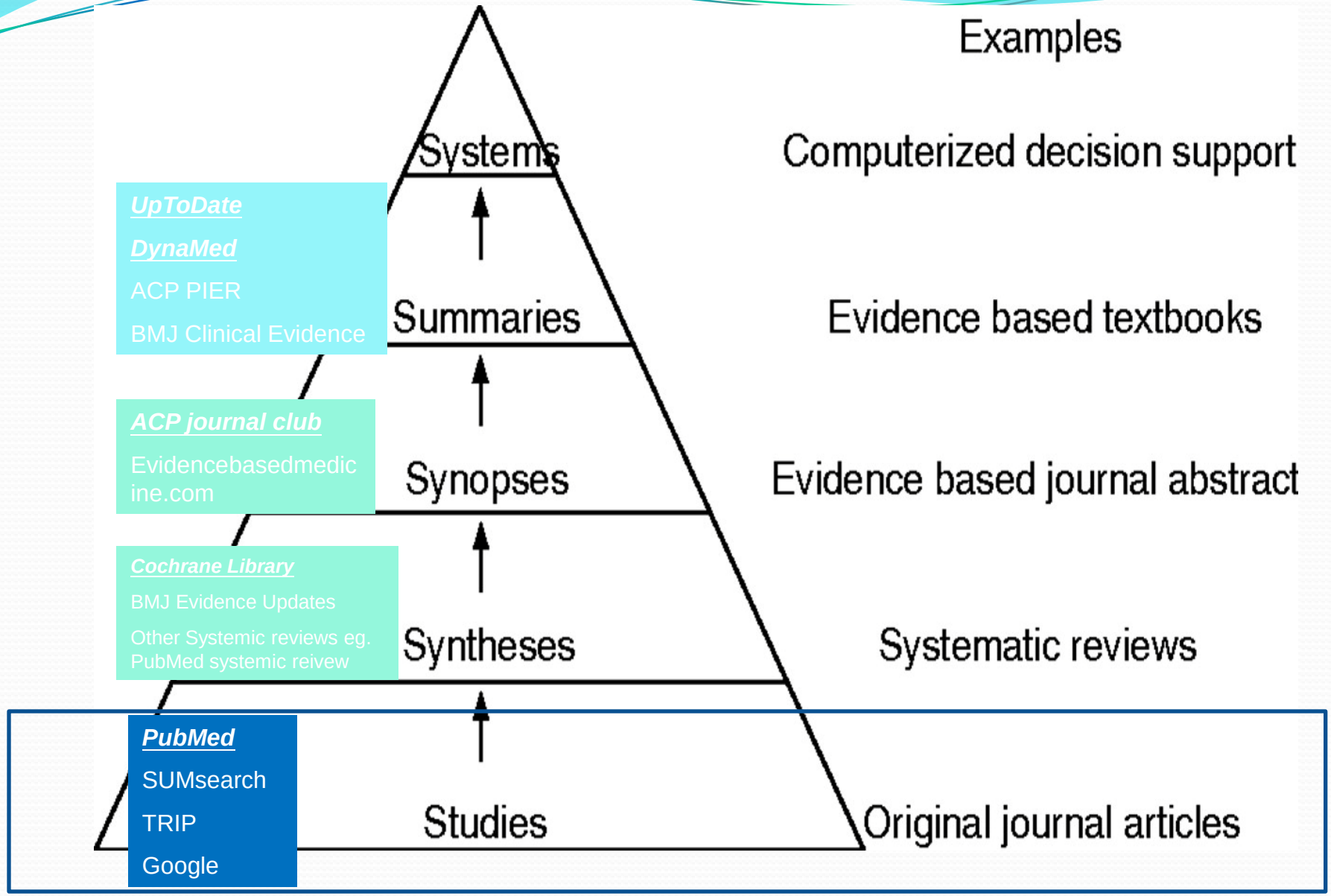
Preoperative radiotherapy is associated with worse functional results after coloanal anastomosis for rectal **cancer** .
Parc Y , Zutshi M , Zalinski S , Ruppert R , Fürst A and Fazio VW
Diseases of the colon and rectum, 2009, 52(12), 2004

Comparison of **chemotherapy** and X‐ray therapy with Ukrain monotherapy for colorectal **cancer** .
Susak YM , Zemskov VS , Yaremchuk OY , Kravchenco OB , Yatsyk IM and Korsh OB
Drugs under experimental and clinical research, 1996, 22(3-5), 115

FOxTROT: Randomized phase II study of **neoadjuvant chemotherapy** with or without an anti‐EGFR monoclonal antibody for locally advanced, operable **colon cancer** [abstract no.TPS192]
Gray RG , Morton D , Brown G , Ferry DR , Magill L , Quirke P , Seymour MT , Warren B and on behalf of the FOxTROT Collaborative Group
Journal of Clinical Oncology, 2010, 28(Suppl 15), 29

# The "5S" levels of organisation of evidence from healthcare research

**Brian Haynes, R Evid Based Med 2006;11:162-164**



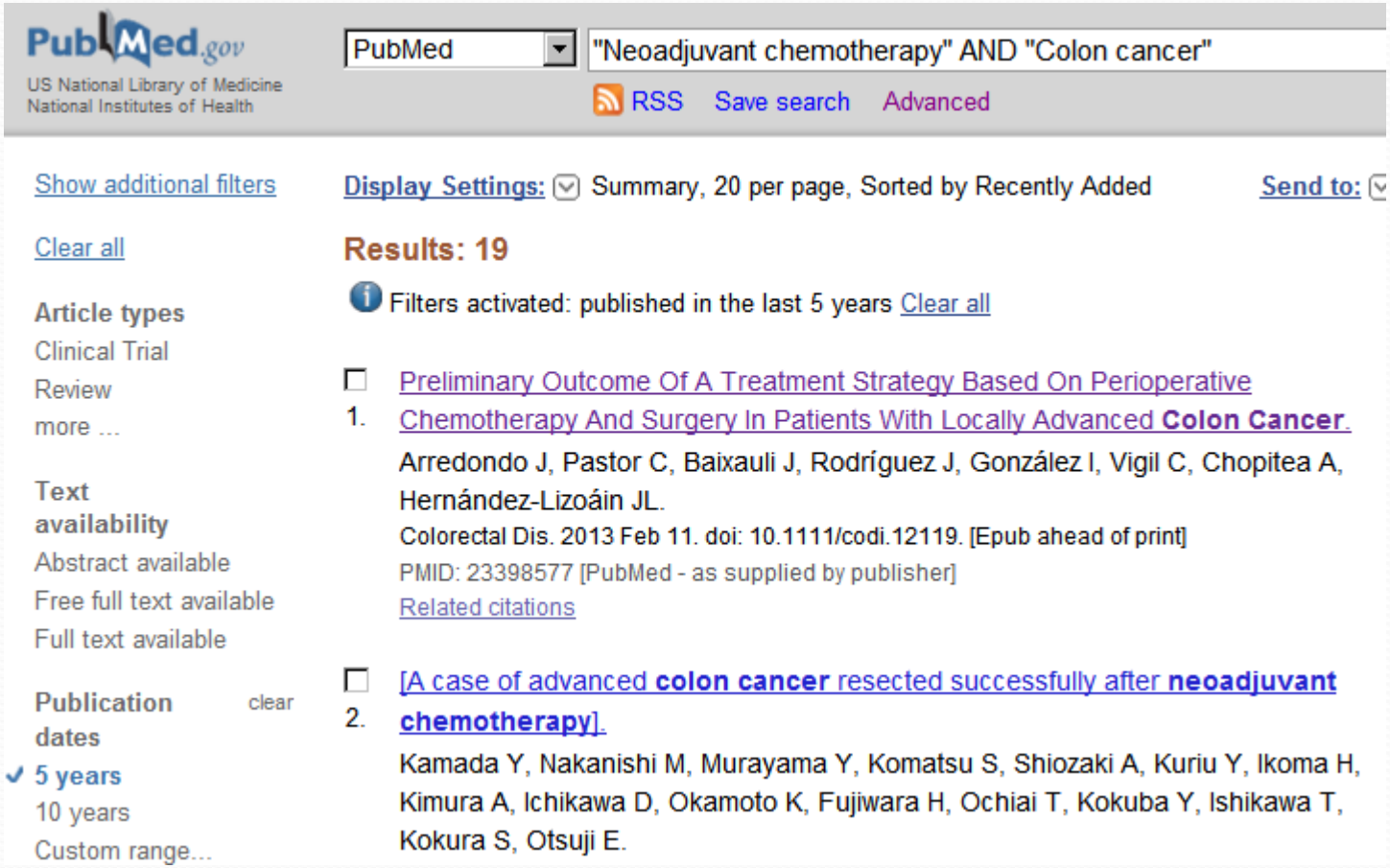
# Search Studies

PubMed.gov
US National Library of Medicine
National Institutes of Health

- 關鍵字：“Neoadjuvant therapy”[Mesh] and “Colonic Neoplasms”[Mesh]
- Limit：Systemic review, Clinical trial , recent 5 years

# Search Studies

- 關鍵字 :“Neoadjuvant chemotherapy” and “Colon cancer”
- Limit : Systemic review, Clinical trial , recent 5 years



# Search Studies

PubMed.gov
US National Library of Medicine
National Institutes of Health

- 搜尋到的文章標題

**Feasibility of preoperative chemotherapy for locally advanced, operable colon cancer: the pilot phase of a randomised controlled trial.**

Foxtrot Collaborative Group.

The FOxTROT Trial, Birmingham Clinical Trials Unit, Robert Aitken Institute, University of Birmingham, Edgbaston, Birmingham B15 2TT, UK. FOxTROT-trial@contacts.bham.ac.uk

Lancet Oncol. 2012 Nov;13(11):1152-60. doi: 10.1016/S1470-2045(12)70348-0. Epub 2012 Sep 25.

# 證據等級

| Level | 與[治療/預防/病因/危害]有關的文獻 |
|---|---|
| 1a | 用多篇RCT所做成的綜合性分析(SR of RCTs) |
| 1b | 單篇RCT(有較窄的信賴區間) |
| 1c | All or none |
| 2a | 用多篇世代研究所做成的綜合性分析 |
| 2b | 單篇cohort及低品質的RCT |
| 2c | Outcome research / ecological studies |
| 3a | SR of case-control studies |
| 3b | Individual case-control studies |
| 4 | Case-series(poor quality :cohort / case-control studies) |
| 5 | 沒有經過完整評讀醫學文獻的專家意見 |

# 搜寻到的文章内容

- **Background**
  - Preoperative (neoadjuvant) chemotherapy and radiotherapy are more effective than similar postoperative treatment for esophageal, gastric, and rectal cancers
    - more effective micrometastasis eradication
    - reduced risk of incomplete excision and tumour cell shedding during surgery
  - The FOxTROT trial aims to
    - investigate the feasibility, safety, and efficacy of preoperative chemotherapy for colon cancer

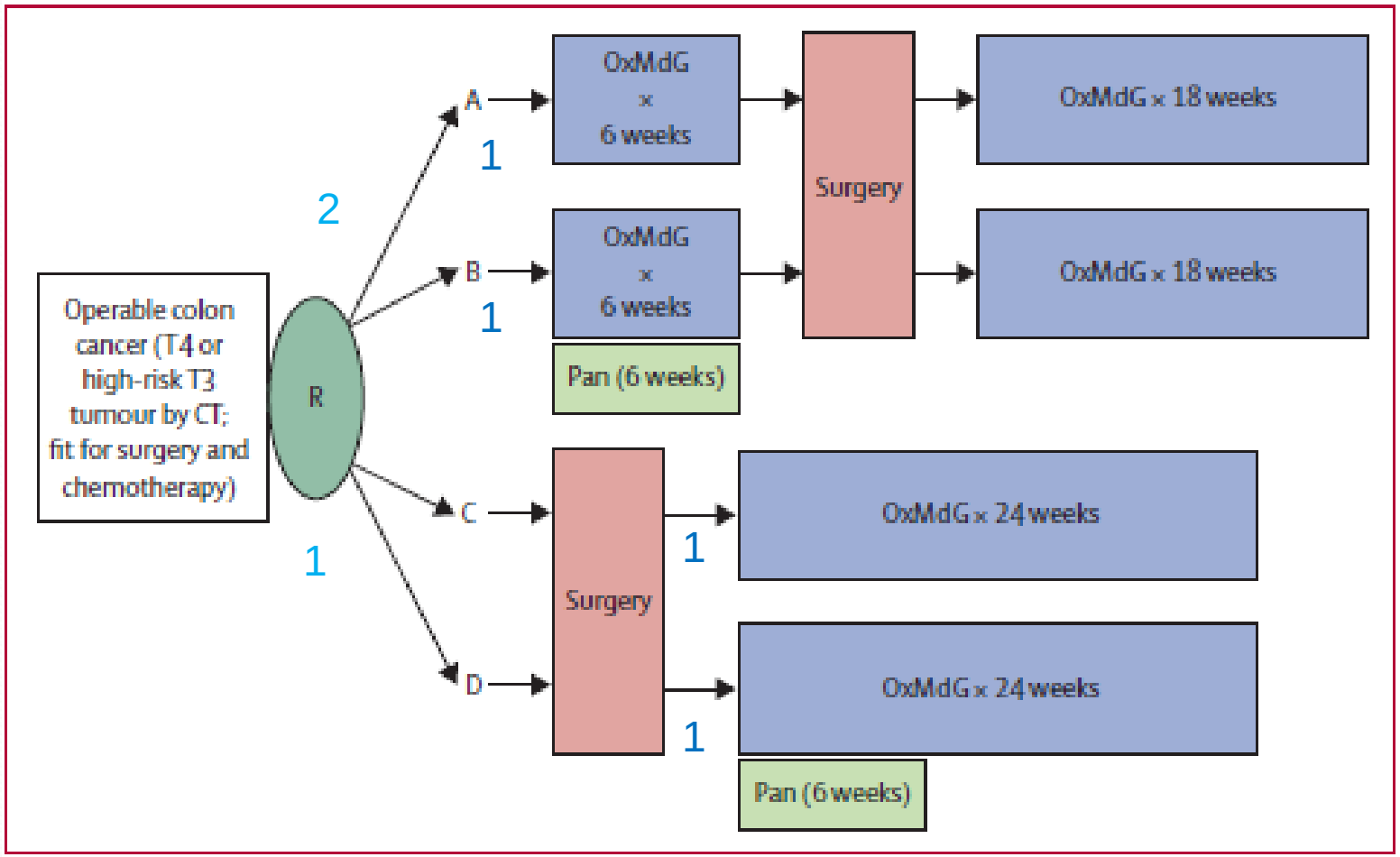
# Methods

- **Patients**
  - 18 years or older
  - with locally advanced adenocarcinoma of the colon
    - T4 or T3 with extramural depth ≥5 mm
    - staging determined preoperatively by either spiral or multidetector CT
  - a 24-week course of oxaliplatin and fluoropyrimidine-based adjuvant chemotherapy would be judged appropriate

# Methods

OxMdG regimen: consisting of cycles of **oxaliplatin** at 85 mg/m2 + **l-folinic acid** 175 mg/m2 + **fluorouracil** 400 mg/m2 by intravenous bolus, followed by a 46 h infusion of 2400 mg/m2 through an indwelling line, repeated at 2-weekly intervals.

only *KRAS* wild-type tumours eligible for the panitumumab randomisation

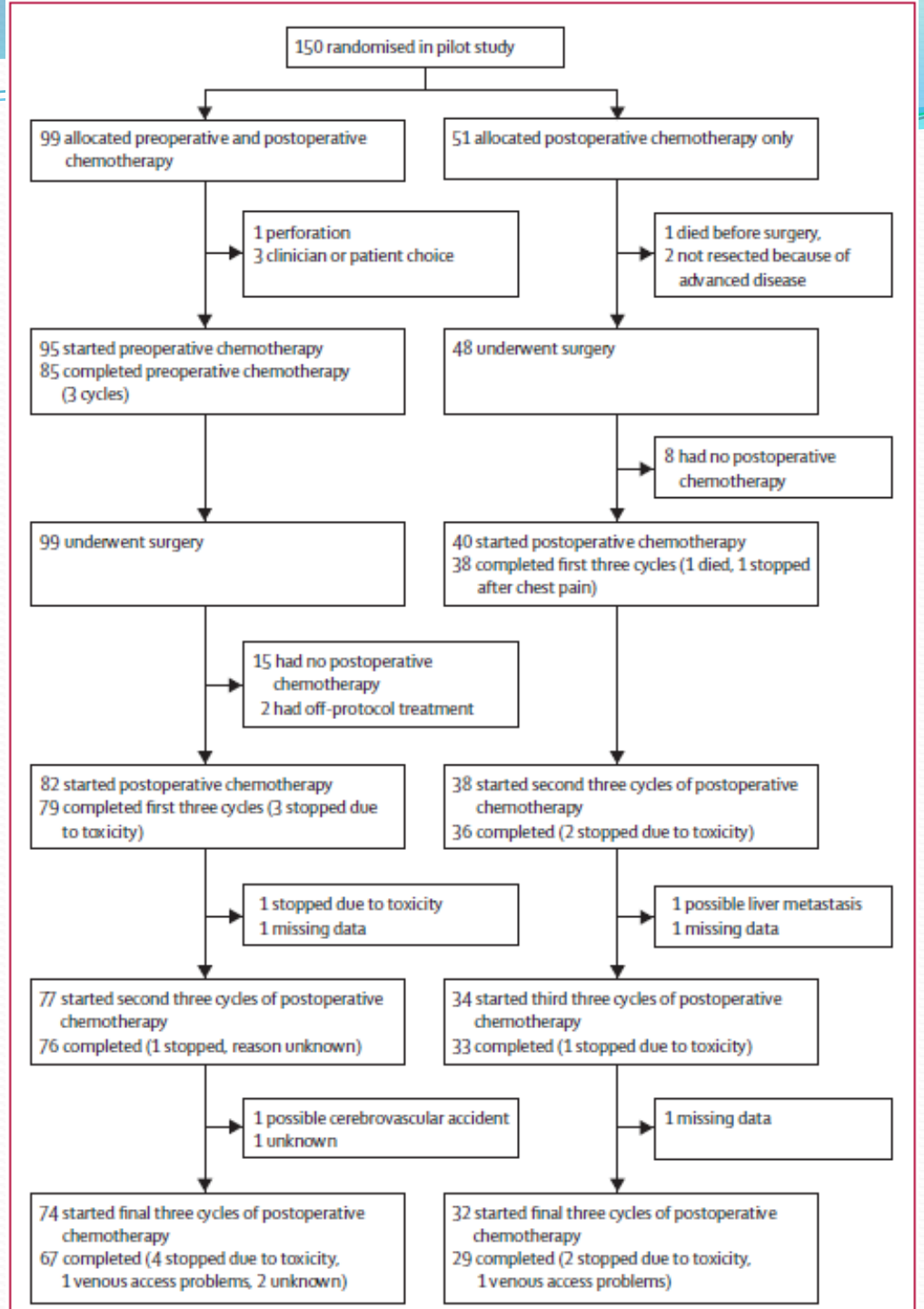


# Methods

- The primary outcomes of the pilot phase
  - feasibility, safety, tolerance of preoperative therapy
  - the accuracy of radiological staging

- Other key outcomes
  - completion of planned surgery
  - perioperative morbidity
  - timely completion of preoperative *KRAS testing*
  - downstaging of the resected tumour
    - measured by histopathological tumour diameter and stage

# Results


150 randomised in pilot study
99 allocated preoperative and postoperative chemotherapy
51 allocated postoperative chemotherapy only
1 perforation
3 clinician or patient choice
1 died before surgery,
2 not resected because of advanced disease
95 started preoperative chemotherapy
85 completed preoperative chemotherapy (3 cycles)
48 underwent surgery
8 had no postoperative chemotherapy
99 underwent surgery
40 started postoperative chemotherapy
38 completed first three cycles (1 died, 1 stopped after chest pain)
15 had no postoperative chemotherapy
2 had off-protocol treatment
82 started postoperative chemotherapy
79 completed first three cycles (3 stopped due to toxicity)
38 started second three cycles of postoperative chemotherapy
36 completed (2 stopped due to toxicity)
1 stopped due to toxicity
1 missing data
1 possible liver metastasis
1 missing data
77 started second three cycles of postoperative chemotherapy
76 completed (1 stopped, reason unknown)
34 started third three cycles of postoperative chemotherapy
33 completed (1 stopped due to toxicity)
1 possible cerebrovascular accident
1 unknown
1 missing data
74 started final three cycles of postoperative chemotherapy
67 completed (4 stopped due to toxicity, 1 venous access problems, 2 unknown)
32 started final three cycles of postoperative chemotherapy
29 completed (2 stopped due to toxicity, 1 venous access problems)

# Results

| | Preoperative plus postoperative chemotherapy (n=99) | Postoperative chemotherapy only (n=51) |
|---|---|---|
| Age (years) | | |
| Median (IQR) | 64 (59–68) | 65 (56–69) |
| Range | 31–82 | 38–78 |
| Age group (years) | | |
| <50 | 9 (9%) | 4 (8%) |
| 50–59 | 16 (16%) | 10 (20%) |
| 60–69 | 50 (51%) | 26 (51%) |
| ≥70 | 24 (24%) | 11 (22%) |
| Sex | | |
| Male | 65 (66%) | 32 (63%) |
| Female | 34 (34%) | 19 (37%) |
| Colonic obstruction | 3/99 (3%) | 1/51 (2%) |
| WHO performance status | | |
| 0 | 67 (68%) | 34 (67%) |
| 1 | 30 (30%) | 17 (33%) |
| 2 | 2 (2%) | 0 |
| Location | | |
| Caecum | 23 (23%) | 11 (22%) |
| Ascending colon | 18 (18%) | 11 (22%) |
| Hepatic flexure | 5 (5%) | 3 (6%) |
| Transverse colon | 7 (7%) | 3 (6%) |
| Splenic flexure | 3 (3%) | 1 (2%) |
| Descending colon | 3 (3%) | 3 (6%) |
| Sigmoid | 32 (32%) | 15 (29%) |
| Rectosigmoid | 8 (8%) | 4 (8%) |
| Radiological T-stage | | |
| T3 | 69 (70%) | 35 (69%) |
| T4 | 30 (30%) | 16 (31%) |
| Radiological N-stage | | |
| Nx | 3 (3%) | 1 (2%) |
| N0 | 23 (23%) | 12 (24%) |
| N1 | 44 (45%) | 22 (43%) |
| N2 | 29 (29%) | 16 (31%) |
| Extramural vascular invasion | 57/98 (58%)* | 31/51 (61%) |
| Mean (SD) | 12·9 (8·8) | 15·5 (9·9) |
| Range | 1–50 | 5–50 |

One radiology form had missing extramural vascular invasion data.

***Table 1*: Patient characteristics at baseline radiology**

# Results

- *chemotherapy* completion rates (24 weeks of treatment)
  - preoperative therapy group : 68% (67 of 99)
  - postoperative chemotherapy patients : 57% (29 of 51) (p=0・19)

# Results

No significant differences in median time to hospital discharge
- pre plus postoperative chemotherapy: 7 days, IQR 5–10;
- postoperative only: 6 days, 3–8; p=0·18

| | Preoperative plus postoperative chemotherapy(n=99) | Postoperative chemotherapy only (n=51) | p value |
|---|---|---|---|
| Anastomotic leak | 5 (5%) | 2 (4%) | 0·77 |
| Wound infection with or without intra-abdominal abscess* | 13 (13%) | 4 (8%) | 0·34 |
| Bronchopneumonia | 2 (2%) | 0 | 0·31 |
| Deep vein thrombosis | 2 (2%) | 0 | 0·31 |
| Rash | 3 (3%) | 0 | 0·21 |
| Neutropenia | 1 (1%) | 0 | 0·47 |
| Death | 0 | 1 (2%) | 0·16 |
| Other | 12 (12%) | 6 (12%) | 0·72 |
| Complication prolonging hospital stay | 14 (14%) | 6 (12%) | 0·81 |
| Procedure resulting in a stoma | 12 (12%) | 5 (10%) | 0·66 |
| Further abdominal surgery needed | 4 (4%) | 2 (4%) | 0·96 |

*All three patients with intra-abdominal abscess also had wound infection recorded.

*Table 2:* **Perioperative complications in the preoperative plus postoperative chemotherapy group compared with the postoperative chemotherapy group**

# Results

- 96% (95 of 99) of patients started and 89% (85 of 95) completed preoperative chemotherapy
  - grade 3–4 gastrointestinal toxicity in 7% (7 of 94) of patients

- All 99 tumours in the preoperative group were resected
  - no significant differences in postoperative morbidity
    - preoperative and control groups: 14%(14 of 99) vs 12%(6 of 51) (p=0 · 81)
  - 98% (50 of 51) of postoperative chemotherapy patients had T3 or more advanced tumours confirmed at post-resection pathology compared with 91%(90 of 99) of patients following preoperative chemotherapy (p=0.10)

# Results

| | Preoperative and post-operative chemotherapy group (n=99) | Postoperative chemotherapy only group (n=50)* | p value |
|---|---|---|---|
| Resection margins | | | |
| R0–complete | 95 (96%) | 40 (80%) | 0·002 |
| R1–incomplete/R2 | 4 (4%) | 10 (20%) | .. |
| Mean distance to nearer margin (mm) | 68·4 (56·6); n=97 | 70·9 (59·9); n=46 | 0·81 |
| Maximum tumour thickness (mm) | 18·5 (12·1); n=61 | 24·4 (16·7); n=33 | 0·08 |
| Maximum tumour diameter (mm) | 49·6 (45·4); n=93 | 62·2 (28·0); n=46 | 0·05 |
| Distance to retroperitoneal margin (mm) | 20·7 (16·1); n=65 | 19·7 (25·6); n=32 | 0·85 |
| Maximum spread beyond muscularis propria (mm) | 6·9 (6·4); n=89 | 8·7 (7·4); n=43 | 0·14 |
| T stage TNM5 | | | |
| T0 (no tumour) | 2 | 0 | MH=0·16; MH combining T0/1/2 and T4=0·20 |
| T1 (invades submucosa) | 0 | 0 | .. |
| T2 (invades muscularis propria) | 7 | 1 | .. |
| T3 (invades through muscularis propria) | 60 | 30 | .. |
| T4 (penetrates to peritoneum) | 17 | 11 | .. |
| T4 (invades adjacent organs) | 13 | 8 | .. |
| N stage TNM5 | | | |
| Nx | 1 | 0 | .. |
| N0 | 59 | 24 | MH=0·039 |
| N1 (1–3 nodes) | 24 | 10 | .. |
| N2 (≥4 nodes) | 15 | 16 | .. |
| Lymph nodes examined | | | |
| 0–5 | 2 | 0 | MH=0·25 |
| 6–11 | 6 | 2 | .. |
| 12–20 | 40 | 16 | .. |
| 21–30 | 33 | 19 | .. |
| 31–40 | 12 | 8 | .. |
| ≥40 | 6 | 3 | .. |
| Median | 21 (15–27) | 22 (16–30) | 0·20 |
| Apical nodes positive | 1/98 | 10/50 | <0·0001 |
| Extramural vascular invasion | 34/97 | 24/48 | 0·085 |
| American (TNM5) staging | | | |
| No tumour | 2 | 0 | MH=0·04 |
| Stage 1 | 6 | 1 | .. |
| Stage 2 (low risk) | 17 | 6 | .. |
| Stage 2 (high risk†) | 35 | 17 | .. |
| Stage 3 | 38 | 24 | .. |
| Stage 4 | 1 | 2 | .. |
| Tumour regression grading | | | |
| Complete response | 2 | 0 | MH=0·0004; any vs little/no regression MH=0·0001 |
| Marked regression | 2 | 0 | .. |
| Moderate regression | 25 | 1 | .. |
| Little/no regression | 65 | 45 | .. |

Data are n (%), mean (SD), or median (IQR). *The two extra tumours are the two that were unresected. Macroscopic evaluation was used. †Either T4, T3 with extramural vascular invasion, or T3 with ≥5 mm invasion of the muscularis propria. MH=Mantel-Haenszel test, TNM5=American Joint Committee on Cancer, fifth edn.

*Table 3*: Tumour characteristics on pathological examination

# Conclusion

- Preoperative chemotherapy for radiologically staged, locally advanced operable primary colon cancer is feasible with acceptable toxicity and perioperative morbidity
- Proceeding to the phase 3 trial, to establish whether the encouraging pathological responses seen with preoperative therapy translates into improved long-term oncological outcome, is appropriate

# EBM的步驟

- Asking
  - 將病人的問題寫成PICO
- Acquire
  - 找資料來回答問題
- Appraisal
  - 嚴格評讀文獻
- Apply
  - 是否可應用到病人身上

# AAMPICOT MODEL

| Item | AAMPICOT for therapy- Criteria | Comments(評論並說明你的根據) |
|---|---|---|
| Answer | 此文獻有沒有回答我的問題 | 部分<br>”此文獻主要著重於neoadjuvant chemotherapy的安全及可行性，不過結果也顯示neoadjuvant chemotherapy可以提高手術腫瘤廓清率以及沒有明顯增加術後併發症，但沒有直接探討術後存活率” |
| Authors | 作者群是這領域的專家嗎？ | 是 |
| | 有沒有利益衝突？ | 無 |
| Method | 本文獻研究設計是屬於以下那一類SR, RCT, Cohort, Case-contro, Case series or report, Expert opinion | RCT, level 1b |

| Item | AAMPICOT for therapy- Criteria | Comments(評論並說明你的根據) |
| --- | --- | --- |
| Population | 取樣是否為隨機取樣？ | 是 |
|  | 取的樣本是否具代表性？其特性是否接近我的病人？ | 是，此篇RCT樣本經病理檢查結果以pT3和pT4的病人居多，符合我們的樣本。 |
|  | 分組是否是隨機分組？ | 是 |
|  | 分組是否採用盲法？ | 否 |

| Item | AAMPICOT for therapy- Criteria | Comments(評論並說明你的根據) |
|---|---|---|
| Intervention | 給予實驗組的處置是否描述清楚，並且是臨床可行的？ | 是，清楚可行 |
| Comparison | 給予對照組的處置是否描述清楚，並且是臨床可行的？各種可能比較皆有了？ | 是 |
| Outcome | 測量了那些結果？是否用客觀的方式測量？請問NNT,NNH各是多少？ | “completion of planned surgery, perioperative morbidity, downstaging of the resected tumor “<br>是，大部分爲客觀方式<br>NNT = 6.25 |
| | 這些結果是否有統計學上的重要性？ | 是，P<0.05 |
| | 這些結果是否有臨床上的重要性？ | 是 |
| | 是ITT analysis還是PP analysis | ITT analysis |

| Item | AAMPICOT for therapy- Criteria | Comments(評論並說明你的根據) |
| --- | --- | --- |
| Time | 測量結果的時間點是否合宜？ | 測量時間點較短，未對病人術後存活率做評估 |
| | 追蹤時間是否夠長？ | 否 |
| | 文獻發表時間？ | September 25, 2012 |

# EBM的步驟

- Asking
  - 將病人的問題寫成PICO
- Acquire
  - 找資料來回答問題
- Appraisal
  - 嚴格評讀文獻
- Apply
  - 是否可應用到病人身上
- AUDIT（自我評估）

| 醫療現況 | 病人意願 |
| --- | --- |
| 目前local advanced colon cancer的病人主要以手術切除配合術後化學治療為主，但術後存活率不佳。 | 若術前neoadjuvant chemotherapy可以增加手術廓清成功的比例，也不會造成明顯化學治療的毒性或延遲手術進行的時間或術後的併發症，病人應可接受。 |
| 生活品質 | 社會脈絡 |
| 根據此篇研究，neoadjuvant chemotherapy沒有明顯增加術後的併發症，而且化療的副作用大部分病人皆可承受而且完成療程。 | neoadjuvant chemotherapy把原本24周化療療程的前六週移到術前，整體所需的醫療成本沒有增加，若能增加手術廓清率，也可減少後續醫療成本。 |

# 總結與討論

- 根據此篇RCT，neoadjuvant chemotherapy可以增加手術的腫瘤廓清率，也沒有明顯增加手術的併發症或延遲手術治療的時間，應是可行的方法。
- 但文中有提到，術後傷口感染機率有提高，雖然在study中沒有統計學上差異，但仍需更進一步研究資料。
- 另外，對於病人術後存活率及長期預後是否有幫助，此篇研究尚無評估。
- 此篇RCT僅是FOxTROT的pilot phase，評估的primary outcome也主要是針對實驗組的安全及可行性，須等完整FOxTROT的結果再做評估。

# AUDIT（自我評估）

- 我提出的問題是否具有臨床重要性？**有**
- 我是否明確的陳述了我的問題？ **是**
- 我的foreground question 是否可清楚的寫成PICO？**可以**
- 我的background question是否包括what, when, how, who等字根？**是**
- 我是否清楚的知道自己問題的定位？（亦即可以定位自己的問題是屬於診斷上的、治療上的、預後上的或流行病學上的），並據以提出問題？**是,屬於治療上的**
- 對於無法立刻回答的問題，我是否有任何方式將問題紀錄起來以備將來有空時再找答案？**大多時候有**

# 「搜尋最佳證據」方面

- 我是否已盡全力搜尋？**已盡力**
- 我是否知道我的問題的最佳證據來源？**知道**
- 我是否從大量的資料庫來搜尋答案？**是**
- 我工作環境的軟硬體設備是否能支援我在遇到問題時進行立即的搜尋？**可以**
- 我是否在搜尋上愈來愈熟練了？**是**
- 我會使用「斷字」、布林邏輯、同義詞、MeSH term，限制(limiters)等方法來搜尋？**大致上會**
- 我的搜尋比起圖書館人員或其他對於提供病人最新最好醫療有熱情的同事如何？ **還有蠻大的努力空間**

# 「嚴格評讀文獻」方面

- 我是否盡全力做評讀了？ **是**
- 我是否了解Number need to treat 的意義？**大致了解**
- 我是否了解Likelihood Ratios的意義？**大致了解**
- 我是否了解worksheet每一項的意義？**大致了解**
- 評讀後，我是否做出了結論？**是**

# 「應用到病人身上」方面

- 我是否將搜尋到的最佳證據應用到我的臨床工作中？**是**
- 我是否能將搜尋到的結論如NNT, LR用病人聽得懂的方式解釋給病人聽？**沒辦法**
- 當搜尋到的最佳證據與實際臨床作為不同時，我如何解釋？**每個病人都有個別差異，會盡量參考最佳證據，但必要時也必須依照病人的個別情況以及臨床的可行性來評估調整。**

# 改變「醫療行為」方面

- 當最佳證據顯示目前臨床策略需改變時，我是否遭遇任何阻止改變的阻力？**目前沒有**
- 我是否因此搜尋結果而改變了原來的治療策略？做了那些改變？**沒有。目前所搜尋到的結果尚無明確結論。**

# 效率評估

- 這篇報告，我總共花了多少時間？**10幾個小時**
- 我是否覺得這個進行實證醫學的過程是值得的？**值得**
- 我還有那些問題或建議？ **無**

# Thanks for your attention!