A CLOUD COMPUTING DATABASE FOR DATA EXTRACTION IN A COCHRANE REVIEW.

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Disclosures

Conflict of Interest

“I have no actual or potential conflict of interest in relation to this presentation.”

Funding

The National Institute for Health Research is the largest single funder of the Cochrane Gynaecological Cancer Group.
Taxane monotherapy for the treatment of platinum pre-treated epithelial ovarian cancer (Review)
What is Drug Resistance?

Chemotherapy Naïve Tumour → Responsive Tumour → Drug Resistant Tumour

Drug Resistant Tumour → Unresponsive Tumour
Paclitaxel vs. Docetaxel

Platinum First-line

Chemotherapy Naive

Platinum Pre-treated

Single-Agent Paclitaxel Salvage

Platinum First-line

Chemotherapy Naive

Platinum Pre-treated

Single-Agent Docetaxel Salvage
Taxane Weekly vs. 3-Weekly

Platinum First-line
Chemotherapy Naive

Single-Agent Taxane Salvage
Platinum Pre-treated

60-80 mg/m² weekly

135-250 mg/m² 3-weekly

Platinum First-line
Chemotherapy Naive

Single-Agent Taxane Salvage
Platinum Pre-treated
Taxane Naive vs. Pre-treated

- Platinum First-line
  - Chemotherapy Naive
  - Platinum and Taxane First-line
  - Chemotherapy Naive
- Single-Agent Taxane Salvage
  - Platinum Pre-treated
  - Single-Agent Taxane Salvage
  - Platinum and Taxane Pre-treated
Platinum Resistant vs. Sensitive

Platinum First-line

< 6 months

Chemotherapy Naive

> 6 months

Platinum Resistant

Single-Agent Taxane Salvage

Platinum Sensitive
Practical Problems
Practical Problems
Cloud Computing

The practice of using a network of remote servers hosted on the Internet to store, manage, and process data, rather than a local server.
Database Design

Cochrane reviewers working online at different locations

Each reviewer submits completed form to database when done

Clinical Trial Paper ID Number - X

Data Extraction Form 1 ID Number - X

Data Extraction Form 2 ID Number - X
Data Extraction Form 1
ID Number - X

Data Extraction Form 2
ID Number - X

Database Design

Database is used to flags discrepancies between the two data extraction forms

Reviewers come to agreement

Data Extraction Consensus Version ID Number - X
How to use: Google Forms

Share this document

Invite people:
- as collaborators
- as viewers
- to fill out a form

How it works:

Create a form and invite people to fill it out...

...their answers will be automatically added to this spreadsheet.

Start editing your form...
Google Forms Database Design

PART A – Common Questions  PART B – Subgroup Specific Questions

PART A – Common Questions  PART B – Subgroup Specific Questions
Part A – Common to All Studies

Cochrane data extraction form

Taxane monotherapy for the treatment of platinum pre-treated epithelial ovarian cancer

^ Required

Article ID *

42

Author, Year

Kudelka A, 1996

Name of reviewer *

Denise Lawlor

Continue »

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Part A – Common to All Studies

Cochrane data extraction form

Study eligibility
This section establishes if the clinical trial is eligible for the review. There are many inclusion and exclusion criteria.
Use for the data:
- reporting how many papers were ineligible/eligible as a percentage
- reporting how many studies were randomised/non-randomised percentage.

What is the design of the study?
Phase I/II Non Randomised – Prospective – Eligible

Are all patients in study ovarian cancer, primary peritoneal or fallopian tube cancer patients?
Yes – Ovarian cancer and primary peritoneal or Fallopian tube – Eligible

Are all the ovarian cancer patients epithelial?
Yes – Eligible

Are all patients in study relapsed or recurrent disease?
Part A – Common to All Studies

Cochrane data extraction form

Assessment of Risk of Bias

Assessment of Risk of Bias in Included Randomised Studies

Sequence generation
Was the allocation sequence randomly generated?

- Yes
- No
- Unclear

Allocation Concealment
Was allocation adequately concealed?

- Yes
- No
- Unclear
Part A – Common to All Studies

Were co-interventions similar or identical?

Additional Assessment of Risk of Bias in Included Non Randomised Studies

<table>
<thead>
<tr>
<th>Were relevant details of eligibility criteria for enrolment of patients in the study provided?</th>
<th>Yes</th>
<th>No</th>
<th>Unclear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was the group of women who received the intervention representative of patients with ovarian cancer?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

« Back  Continue »
Part A – Common to All Studies

Cochrane data extraction form

Subgroup Classifications
May have more than one per study

All Studies Epithelial Ovarian Cancer
- Paclitaxel
- Docetaxel
- Both

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Part A – Common to All Studies

Cochrane data extraction form

Paclitaxel

Frequency
- Weekly
- 3 Weekly
- Both

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Part A – Common to All Studies

Cochrane data extraction form

Paclitaxel 3 Weekly

Pre-treated or Naïve
- Taxane Pre-Treated
- Taxane Naïve
- Both
- Unknown

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Part A – Common to All Studies

Cochrane data extraction form

Paclitaxel/3 Weekly/Unknown

Platinum Resistant or Sensitive
- Platinum Resistant
- Platinum Sensitive
- Both
- Unknown

« Back Continue »

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Part A – Common to All Studies

Cochrane data extraction form

Thanks!
Please submit this first part of the data extraction, more coming soon!

» Back  Submit

Never submit passwords through Google Forms.

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<table>
<thead>
<tr>
<th>Timestamp</th>
<th>Article ID</th>
<th>Author, Year</th>
<th>Name of reviewer</th>
<th>Are all patients in study ovarian cancer, primary peritoneal or fallopian tube cancer patients?</th>
<th>Is the treatment intervention taxane monotherapy?</th>
<th>Is the treatment given weekly or 3 weekly?</th>
<th>Is the treatment salvage?</th>
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<td>3</td>
<td></td>
<td>Britta Stordal</td>
<td>-</td>
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### Part A – Consensus

<table>
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<tr>
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<th>Are all patients in study ovarian cancer, primary peritoneal or fallopian tube cancer patients?</th>
<th>Is the treatment intervention taxane monotherapy?</th>
<th>Is the treatment given weekly or 3 weekly?</th>
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<tr>
<td>9/18/2012 10:18:01</td>
<td>3232</td>
<td>Piccart, 1995</td>
<td>Britta Stordal</td>
<td>Yes – Ovarian cancer and primary peritoneal or fallopian tube cancer patients</td>
<td>Yes Docetaxel – Eligible</td>
<td>3 Weekly – Eligible</td>
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<tr>
<td></td>
<td>Is the treatment a salvage therapy?</td>
<td>Start date of patient recruitment? (month, year)</td>
<td>End date of patient recruitment? (month, year)</td>
<td>Are the patients taxane pre-treated or taxane naive?</td>
<td>Are all the patients platinum pre-treated?</td>
<td>Are all patients platinum resistant or sensitive?</td>
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</tr>
<tr>
<td>4</td>
<td>Yes – Eligible</td>
<td>May 92</td>
<td>June 94</td>
<td>Unknown – Recruited before</td>
<td>Yes – Eligible</td>
<td>Both – Can be separated – Eligible</td>
</tr>
<tr>
<td>5</td>
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<td>8</td>
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</table>
Part B – Data to Separate by Subgroup

Cochrane data extraction form - P3WN

Taxane monotherapy for the treatment of platinum pre-treated epithelial ovarian cancer
* Required

Article ID *

11

Author, Year

Bruzzone, 1996

Name of reviewer *

Britta Stordal

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Part B – Data to Separate by Subgroup

### Cochrane data extraction form - P3WN

**Patient Flow Chart through study**
Include both arms of a randomised study

<table>
<thead>
<tr>
<th>Group</th>
<th>Count</th>
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<tbody>
<tr>
<td>Not Eligible</td>
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<tr>
<td>Randomised - Paclitaxel/I3 Weekly/Taxane Naïve/Platinum Resistant</td>
<td>30</td>
</tr>
<tr>
<td>Randomised - Paclitaxel/I3 Weekly/Taxane Naïve/Platinum Sensitive</td>
<td>9</td>
</tr>
<tr>
<td>Randomised - Both</td>
<td>39</td>
</tr>
</tbody>
</table>

### Response - Paclitaxel/I3 Weekly/Taxane Naïve/Platinum Resistant
Number Reporting Outcomes
Part B – Data to Separate by Subgroup

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>Unknown/Not Assessable</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paclitaxel/3 Weekly/Taxane Naive/Platinum Resistant</td>
<td>2</td>
<td>5/36 = 13.8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paclitaxel/3 Weekly/Taxane Naive/Platinum Sensitive</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paclitaxel/3 Weekly/Taxane Naive/Platinum Resistant</td>
<td>4/28 = 14.3%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paclitaxel/3 Weekly/Taxane Naive/Platinum Sensitive</td>
<td>1/8 = 12.5%</td>
<td></td>
</tr>
</tbody>
</table>

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Part B – Data to Separate by Subgroup
### Saving Google Docs Links

A phase II trial of weekly docetaxel in patients with platinum-resistant epithelial ovarian, primary peritoneal serous cancer, or fallopian tube cancer


/12/2004

Other

C:\Users\Britt\Documents\Cochrane Project\Cochrane Papers PDF Files\6.pdf

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<table>
<thead>
<tr>
<th>Ref ID</th>
<th>Notes</th>
<th>Reprint</th>
<th>Date, primary</th>
<th>Authors</th>
<th>Title</th>
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<td>Eligible - Now including Fallupian Tube and primary peritoneal cancers with ovarian</td>
<td>Reprint</td>
<td>2004</td>
<td>Berkenblit, A.</td>
<td>A phase II trial of weekly docetaxel in patients with platinum-resistant epithelial ovarian, primary peritoneal serous cancer, or fallopian tube cancer</td>
</tr>
<tr>
<td>7</td>
<td>Not Eligible - Retrospective</td>
<td>In File</td>
<td>1996</td>
<td>Blom, R.</td>
<td>Paclitaxel (Taxol) monotherapy in the treatment of prostatic cancer. Authors: Blom, R.</td>
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<tr>
<td></td>
<td>Not Eligible - Paclitaxel is given the File</td>
<td>Not Eligible</td>
<td>1996</td>
<td>Bolis, G.</td>
<td>Paclitaxel milcromic in the treatment of prostatic cancer. Authors: Bolis, G.</td>
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</table>
Saving Google Docs Links

New Form
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Part A Consensus 04-05-13
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Part B
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Part B Consensus 11-6-13
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Keywords
Cancer;

Reprint
In File

Journal
Gynecologic Oncology

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<td>A phase II trial of weekly docetaxel in patients with pla</td>
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<td>Blom,R.</td>
<td>Paclitaxel (Taxol) monotherapy in the treatment of pro</td>
</tr>
<tr>
<td>8</td>
<td>Not Eligible - Missing - ILL Cann:O</td>
<td>In File</td>
<td>1995</td>
<td>Bolis,G.</td>
<td>A multicenter randomized study of paclitaxel (PTX) vs</td>
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<tr>
<td></td>
<td>Not Eligible - Paclitaxel is given i</td>
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<td>1999</td>
<td>Bolis,G</td>
<td>Paclitaxel neoadjuvant plus paclitaxel or surgery</td>
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</table>
Analysis of Data - Docetaxel

Docetaxel

Weekly
  - Pre-treated
  - Naïve

3-Weekly
  - Pre-treated
  - Naïve
Analysis of Data - Docetaxel

Docetaxel 595

Weekly
- Pre-treated 81
- Naïve 0

3-Weekly
- Pre-treated 58
- Naïve 456
Analysis of Data - Docetaxel

3-Weekly Docetaxel (Taxane Pre-treated) n = 514

Weekly Docetaxel (Taxane Naive) n = 81

Z-test for Comparison = 3.47 p = 0.0003
Conclusions

• The cloud-computing database overcomes the problems of authors working in multiple locations and provides long-term storage not linked to one institution.

• The database is cost-effective using Google Docs and Forms freeware and Microsoft Excel. Google Forms makes the data extraction straightforward for review authors.

• The database has made the multiple subgroups of the Cochrane review easily interrogated for the write up of the review.
Questions?

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