INTRODUCTION:

- Alzheimer’s Disease (AD) destroys brain cells, causing problems with memory, thinking, and behavior known to affect work, family and social relationships, and, eventually, the most basic activities of daily living.
- All gals versus one it is incurable, and fatal. Donepezil, galantamine, rivastigmine and memantine are the current treatment options but the latest evidence was not systematically reviewed.

METHODS:

- The following databases were searched systematically for randomized-controlled studies:
  - PubMed, Health Technology Assessment Database, NHS Economic Evaluation Database, Cochrane Central Register of Controlled Trials, Cochrane Database of Systematic Reviews, DARE-Galterbank, PSYTRAC and PsyINFO.

Table 1: PICO criteria for defining the systematic research question

<table>
<thead>
<tr>
<th>PICO criteria</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Patient</td>
<td>“Alzheimer’s Disease”, “Alzheimer”, “Alzheimer type dementia”</td>
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<tr>
<td>Intervention</td>
<td>Drug treatment – Rivastigmine, Galantamine, Donepezil Psychiatric/Therapeutic treatment Other medical and Therapeutic/Therapy Trials</td>
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<td>Comparison</td>
<td>Other forms of dementia</td>
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<tr>
<td>Outcomes</td>
<td>Therapeutic treatment options Mortality &amp; Mortality Complications</td>
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- Search terms:
  - Therapy/Rivastigmine, Galantamine, Donepezil
  - Indication “Alzheimer’s Disease”, “Alzheimer”, “Alzheimer type dementia”
  - Extraction Only efficacy parameters
  - In order to catch all relevant articles the following inclusion criteria will be applied:
  - Time: all articles between 2000 until 2014
  - Language: English, German

- For the abstracts that met the pre-defined inclusion criteria, full text articles were obtained. The abstracts that did not meet the search criteria were excluded.
- Based on these full text reports it was evaluated whether each study meets the selection criteria.

RESULTS:

- After exclusion of duplicates the search yielded 418 articles of which another 289 were excluded based on the title selection. After abstract review (inclusion n=37), 62 articles have been reviewed in full text which were also deemed to be relevant based on the research question.

CONCLUSIONS:

- In comparison the clinical evidence seems to be less varying dependent on the patient characteristics, study duration, and severity of disease.
- Appropriate evidence assessment for the approved AD treatments requires clinical expertise and close review of the study characteristics.
- Novel in this study is comparing the study characteristics preparing a network meta-analysis and extracting the salient information of the identified studies.