STSM "Developing expertise in systematic review Methodology and strengthening European collaboration across TINNET" – Agnieszka J. Szczepek M.Sc., Ph.D.

The aim

The purpose of STSM "**Developing expertise in systematic review Methodology and strengthening European collaboration across TINNET**" in Nottingham, UK with Prof. Deborah Hall was to actively participate in a process of creating and writing of systematic review. The aim of the review is to identify and characterize the outcome measures used in the past 10 years in various clinical tinnitus studies and trials.

The duration of my STSM was one week (leaving Berlin on Sunday, the 8.03.2015 and coming back on Saturday, 14.03.2015).

Description of the work carried out during a mission

During the first, second and third day, together with Prof. Hall, I have designed the key methodological aspects of the systematic review protocol with discussion and feedback from other active members of working group 5. It was done using PICOS (see Appendix A).

Together with Prof. Hall and the WG5 group members (*via* electronic discussion), I had identified following PICOS issues:

- Patient : Adults with tinnitus (≥16 years, male and female)
- Intervention : All interventions for tinnitus
- Comparison : Any
- Outcome : Any changes related to tinnitus
- Setting : Any
- QUESTION
- Type of question: Therapy

We have formulated the ultimate question of our study:

Question: What is the current standard of reporting outcome domains in studies of adults with a focus on the treatment of tinnitus?

For our analyses, we have decided to include following types of studies: meta-analysis, systematic review, randomised controlled trials, before and after studies, non-randomised controlled trials/Case controlled study, cohort study

We agreed on the following INCLUSION CRITERIA:

- Include unpublished studies that are listed on public registries
- Studies with ≥20 tinnitus patients at the end of follow up (this number is selected arbitrarily to exclude numerous case reports or case series which are of negligible clinical and scientific value)

We agreed on the following EXCLUSION CRITERIA

- Opinion articles

- Practice guidelines,
- Expert opinions,
- Case series
- Case report
- Book chapters
- Conference papers, manufacturers' articles and other grey literature
- Non-English language articles
- Animal studies
- Paediatric/Pediatric/Child*
- Published before July 2006 (this number is selected arbitrarily to follow from the first international consensus meeting for tinnitus patient assessment and treatment outcome measurement, cf. Langguth et al., 2007)

Next, I had specified the search strategy for following electronic databases: Cochrane Central Register of Controlled Trials (CENTRAL), PubMed, EMBASE (Ovid), CINAHL (EBSCO), ClinicalTrials.gov, ISRCTN (mRCT) and ICTRP.

Together with Prof. Hall, I had identified the main topics and alternate terms:

- Tinnitus
- Stud*
- Clinical trial*
- Therap*
- Treatment*
- Intervention*

I have also submitted our systematic review record to the PROSPERO register. Reference number CRD42015017525.

Finally, I had conducted the search for all databases listed above and have identified 1936 records. Since the records were saved in various formats (depending on the database they were derived from) I had reformatted all of them and merged them into Excel spreadsheet.

In addition, I had created a draft outline for an article reporting the systematic review protocol.

Description of the main results obtained

The main result of my STSM was the design of our search strategy and the execution of the search itself (identification of 1936 records). The results obtained from PubMed, EMBASE and CINAHL were retrieved as Endnote files and could be immediately screened for duplicates. Following number of manuscripts or study descriptions were retrieved for further analyses:

- CENTRAL n = 560
- PubMed (Medline), EMBASE and CINAHL n=998
- ISRCTN n = 22
- ICTRP (WHO) n = 183

Together, this makes 1763 records. All records were converted into uniform EXCEL format.

Additional result was the official registration of our study in PROSPERO, which is the International prospective register of systematic reviews.

Final result was participation in drafting the manuscript.

Future collaboration with the host institution

I am in close contact with the host institution and actively participate in further work and drafting of the systematic review. In addition, we have identified mutual interest for future collaboration on further issues.

Foreseen publications/articles resulting from a mission

We plan on publishing our search strategy as well as the systematic review study in respective journal such as Clinical Trials http://ctj.sagepub.com/ or Contemporary Clinical Trials http://www.sciencedirect.com/science/journal/15517144.

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14 April 2015

Dear Gosia,

Dr Agnes Szczepek visited our lab for 5 working days (Monday 9 to Friday 13 April inclusive). We also continued to correspond on this activity for some time after Agnes' visit to maximise the benefits of this STSM opportunity for the next STSM participant.

The main activities that Agnes and I undertook were:

1) designed the key methodological aspects of the systematic review protocol with discussion and feedback from other active members of working group 5.

2) submitted our systematic review record on the PROSPERO register. Reference CRD42015017525.

3) specified the search strategy for the electronic databases and conducted the search for all databases. This specified a total of 1936 records.

4) formatted all records and consolidated into a single excel spreadsheet.

5) created a draft outline for an article reporting the systematic review protocol.

As you see, Agnes has made a substantial contribution and has learned a lot about the stages required for a systematic review. It's been a pleasure to host.

Yours sincerely,

D. Hall

Professor Deborah Hall
Director
National Institute for Health Research Nottingham Hearing Biomedical Research Unit