



Introduction

This is the first one day course organised by the FIMM Academy. The present course is based on the complete revised version of the Reproducibility and Validity Protocol. To understand the goals of this course, a small history of the background of this protocol and a brief overview of the past Academy is essential.

The former Scientific Committee of the formulated the problem with respect to diagnostic procedures in Manual/Musculoskeletal Medicine (M/M M). The present Academy adopted the starting point as a base for its present and future activities. This problem is summarised in the statement:

There are many different schools in Manual/Musculoskeletal Medicine in many different countries of the world, with many different diagnostic procedures and many different therapeutic approaches.

The consequences of this defined problem for our profession is five-fold:

- At first, most schools within M/M M have not validated yet their own characteristic diagnostic procedures in the different regions of the locomotion system. Therefore reproducibility, validity, sensitivity and specificity of these diagnostic procedures is still lacking.
- Secondly, at present time, all the different schools within M/M M with their own arsenal of diagnostic procedures still coexist. Because of lack of good reproducibility, validity, sensitivity and specificity studies, mutual comparison of diagnostic procedures between schools is impossible. Scientific information exchange and fundamental discussions between these different schools, based on solid scientific reliability studies, is almost impossible in the present situation.
- Thirdly, the absence of reliable diagnostic procedures in M/M Medicine leads to heterogeneously defined study populations in efficacy trials. As well as positive proven published efficacy studies as negative ones, can be due to a subpopulation in the heterogeneous study population, which is responsible for the final outcome of the efficacy study. Comparison of efficacy trials in these heterogeneous study populations with the same therapeutic approach (for instance manipulation) and different unreliable diagnostic procedures, is by definition impossible.
- Fourthly, unreliable diagnostic procedures of different schools, ill-defined therapeutic approaches and low quality study designs are the main causes some of the weak evidences of proven therapeutic efficacies in M/M Medicine.
- Fifthly, If the present situation is allowed to continue, it will lead to a slowing down of the badly needed process of professionalisation of M/M Medicine in general and its education systems in particular.

Outside the development of complete revised Reproducibility and Validity Protocol in M/M M, the Academy has also developed protocols for efficacy in M/M M. In this way the Academy wanted to provide the National Societies of the FIMM with the proper tools to perform reproducibility and efficacy studies.

The Academy wants to emphasise that good reproducibility of diagnostic tests in M/M Medicine has the first priority. This kind of studies is easy and cheap to perform and form the best base for mutual discussion between schools in M/M Medicine. Co-operation and active involvement of the National Societies of FIMM is indispensable and crucial for the future work of the Academy.

Implementation of the developed protocols is one the key activities of the Academy. The first most logical way is to disseminate and implement the Academy Reproducibility and Validity Protocol through educational boards of the National Societies of the FIMM. Training its members to perform reproducibility studies, because they are the experts in the diagnostic field of their own schools, has the first priority. By doing so, they will professionalize their education system in a evidence based way. Diagnostic procedures become transferable and will lead to mutual discussions based on scientific results.

Jacob Patijn, Scientific Director FIMM Academy



PROGRAMME OF THE INSTRUCTIONAL COURSE FOR RELIABILITY IN MANUAL/MUSCULOSKELETAL MEDICINE: REPRODUCIBILITY AND VALIDITY

INTERNATIONAL ACADEMY OF MANUAL/MUSCULOSKELETAL MEDICINE

Format Instructional Course

The format of this course is to train in particular the members of educational boards. In addition, other interested participants, scientists and students in the field of M/M Medicine are welcome

Step by step the different phases of a reproducibility study will be elucidated. Presentation of theoretical aspects of the reproducibility study and its statistic methods will be relieved by practical presentations of the course leaders and practical training sessions of the participants. An active participation of the participants is of course mandatory.

The theoretical base for this course is formed by the complete revised version of the Reproducibility and Validity Protocol.

Examination tables are available for the training sessions. Participants are asked to wear suitable underwear for the training sessions in which they have to practise on each other.

Equipment: one stage examination table, 30 persons 10 examination tables, a beamer, a overhead projector

Totally estimated course duration: about 11 hours

In the syllabus the hand over of all the presentations will be included. It provide the participant to make notes in every stage of the course in relation to the shown slide.

In the syllabus, a study form is included to record the findings of a particular training session. Also a copy of the complete revised version of the Reproducibility and Validity Protocol is included in the syllabus.

Main Aims of the Course

The main end goals of this course are:

1. Educational Boards, scientist and practitioner in the field of M/M Medicine become convinced of the necessity to perform reproducibility studies as first priority
2. Knowledge of the different phases or periods of a reproducibility study
3. Knowledge of the pitfalls of a reproducibility study
4. Master the statistic method of the kappa value a the best measure for inter-observer agreement
5. To perform a reproducibility study of the diagnostic procedures of their own educational system
6. The professionalisation of the education system in a evidence based way

In the presented programme below, issue goals will be mentioned related to every separate issue of this programme.

PROGRAMME

09.30 – 10.00		Registration
10.00 – 10.15	Presentation: Issue goals:	Welcome and Introduction (PowerPoint 01) Information about the background of the course, the previous work of the Scientific Committee in the past, the end goals of the course, overview of the course.
10.15 – 11.15	Presentation: Issue goals:	Theoretical Background Reproducibility Studies (PowerPoint 02) Explanation of the theoretical background and statistics used in reproducibility studies. The difference between reproducibility and validity of a diagnostic procedure, different kind of data in this kind of studies and their special statistics, kappa value as the used measure for reproducibility in the course.
11.15 – 12.15	Practical Training: Issue goals:	Interobserver Agreement (PowerPoint 03) Estimation of the interobserver agreement by the participants of a chosen test, to become aware of different performances in observers of the same test, to realise its consequences for a reproducibility study with respect to the details of the performance of a diagnostic procedure. A overall agreement figure is calculated in two studies.
12.15 – 13.00		Coffee Break/ Small Lunch
13.00 – 13.15	Presentation: Issue goals:	Reproducibility Protocol (PowerPoint 04) Explanation of the different phases of the Academy Reproducibility Protocol. Logistics of a reproducibility study
13.15 – 14.30	Practical Training: Issue goals:	Training Period: hypothesis of a test (PowerPoint 05) Based on the tests of the previous interobserver agreement session and other tests from M/M Medicine, participants have to learn the distinction between hypothesis of a test and the test procedure as such and its judgement in daily practice. Participants have to learn to reach a consensus about the performance, the new hypothesis and the judgement of tests.
14.30 – 15.00		Tee/Coffee Break
15.00 – 16.00	Practical Training: Issue goals:	Training Period of Protocol: Test Procedure (PowerPoint 05a) Based on the tests of the previous hypothesis morning session, the participants have to become familiar with the fact that minor details of test procedure are decisive for the overall agreement in a reproducibility study.
16.00 – 16.15	Presentation: Issue goals:	Overall Agreement Period of Protocol: theory (PowerPoint 07) Theoretical aspects of the overall agreement in a study. The necessity of a substantial agreement for the rest of the study. training period of the protocol with respect to statistics in reproducibility studies. Example of studies are presented.
16.15 – 17.00	Practical Training: Issue goals:	Overall Agreement Period of Protocol (PowerPoint 08) To perform an overall agreement period of the protocol and to reach a substantial overall agreement of over 80%.
17.00 – 18.30		Dinner

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18.30 – 19.00	Presentation:	Study Period, Statistics and Publication of Protocol: <i>theory</i> (PowerPoint 09)
	Issue goals:	To learn the 50% prevalence method in reproducibility studies. To perform simple analysis of the results of a study. To become familiar with the condition for proper publication.
19.00 – 20.30	Practical Training:	Semi-quantification of different categories of tests: <i>training</i> (PowerPoint 10)
	Issue goals:	To learn the problems of quantification of the tests out of daily practise and those which are taught in educational courses in M/M Medicine.
20.30– 21.00		Evaluation Forms and Closure The course is evaluated by a questionnaire to improve future courses.