



# **UPDATE ON CARDIOLOGY E-PLATFORM**

## **MCQ WRITING GROUP**

**CESMA Meeting 21st Nov 2009**

**Dr Peter Mills Chairman EBSC**



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- Approx. **70 Writers from 11 countries** (UK, Belgium, Netherlands, Sweden, Germany, Spain, Italy, Czech Rep., Greece, Poland, Switzerland)
- 1<sup>st</sup> Writing session – started in Autumn 2008: each Writer is assigned a topic from the ESC General Cardiology Core Curriculum



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- Spring 09 MCQ Review Meeting - **Approx. 400 MCQs produced** and reviewed
- Summer 09 – focus on producing MCQs for the Second Edition ESC Textbook for General Cardiology (over 200 MCQs produced)
- Fine-tuning MCQ Format for Knowledge Assessment
  - Best of Five (only one correct answer)
  - All MCQs are written against EBAC Accredited Educational Resources
    - ESC Guidelines
    - ESC Textbook
    - Education in Heart articles
    - ....



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➤ MCQs are for:

➤ **Learning purposes:** “Open Book Assessment” - **formative** questions with feedback if wrong answer + guidance for further reading/ for finding the right answer.

Requirement: large bank of questions + all questions have to relate to an educational resource. Questions can be re-used ... “if you know the answer to the 5000 MCQs in the Bank, you know the breadth of the Curriculum!”

➤ **Assessing purposes:** “Examination type Assessment” - **summative** questions (no feedback if given + a question once used ought not to be used again)

Requirement: questions do NOT necessarily relate to an educational resource.

The questions have to remain secret:



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- MCQs Formats: The MCQ Writing Group are currently assessing various formats of MCQs and their respective implementations (for the different purposes)
  - **Best of Five:** (only one correct answer)

### Question Stem

- Option 1 – True ←-
- Option 2 - False
- Option 3 - False
- Option 4 - False
- Option 5 - False
- **Best of five** (more than one correct answer)
- **True / False**



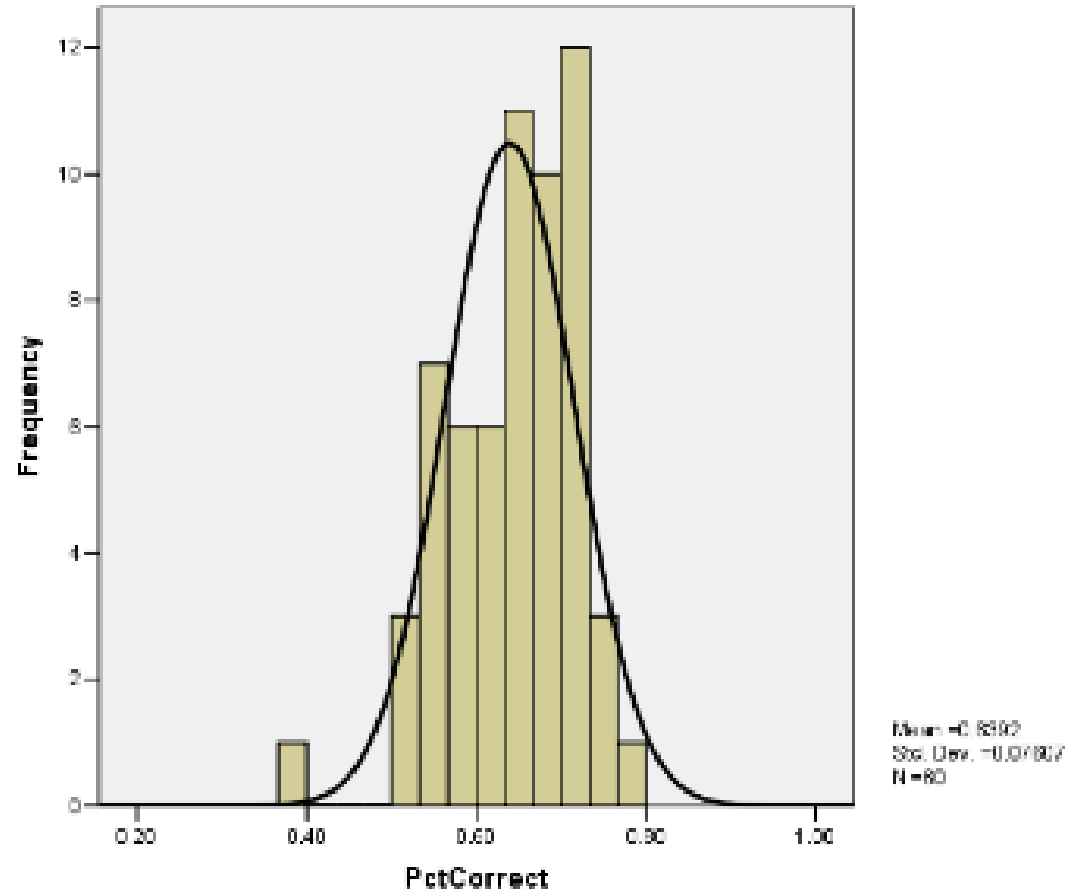
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## FIRST GENERAL CARDIOLOGY KNOWLEDGE ASSESSMENT

- In cooperation with the British Cardiovascular Society, the First General Cardiology Knowledge Assessment was organised in London on 30 May 2009.
- 120 MCQs selected from the MCQ Bank – reflecting Core Curriculum distribution
- Candidates: 60 cardiologists (mostly year 3 and year 4 of Specialist Training)
- Psychometric reports:
  - Pilot Knowledge Assessment was valid and reliable (“year 4 ST4 +” did better than “year 3 ST3 -”)
  - Cronbach’s alpha coefficient was 0.75 – very good for a pilot (high-stakes situations should have a reliability of 0.8-0.9)

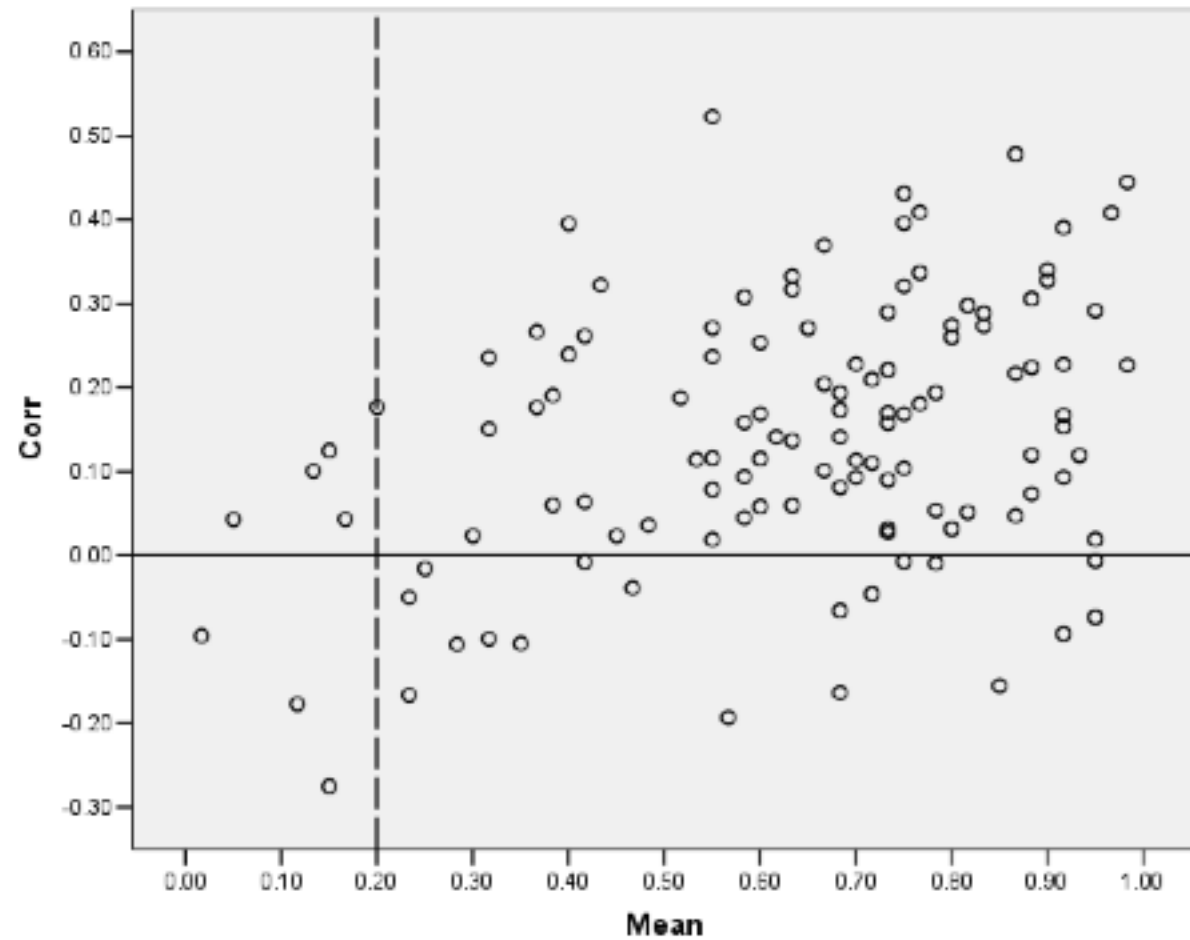


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- The “Bank” started off with approx. 90 MCQs from UK Writers
- The “Bank” aims to develop 4 to 5’000 MCQs for both
  - “Open Book Assessment” – formative assessment of knowledge related to EBAC approved educational products – Textbook, Guidelines, etc
  - Standard Examination – MCQs not necessarily related to educational content



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- After one year, the “Bank” holds approx. 1400 MCQs (UK Writers, new MCQs, EBAC Accredited Educational Resources – Guidelines, Textbook (1<sup>st</sup> and 2<sup>nd</sup> edition), Education in Heart articles)
- The MCQ Team are working with ESC Education Committee and the EBSC to bring the **MCQ Writing Process on-line** for greater reliability, efficiency and flexibility
- On-going process of recruiting MCQ Writers and production of MCQs



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Thank you!



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# Why 360° Assessment?

- One piece in the jigsaw of defining a good competent doctor
- Recognises team work
- Recognises the existence of patients (who are also voters)
- Can be structured in a non-threatening, constructive way



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# A Multi-rater feedback ...

