Putting it all together:
from the ESC core curriculum to the EEGC and beyond
- what the exam is, how it works and what impact it has…

Chris Plummer
UEMS vice-president for training, EEGC board chair
conflicts of interest

• none
MILLER’S PRISM OF CLINICAL COMPETENCE (aka Miller’s Pyramid)

it is only in the "does" triangle that the doctor truly performs

- Performance Integrated Into Practice
  - eg through direct observation, workplace based assessment

- Demonstration of Learning
  - eg via simulations, OSCEs

- Interpretation/Application
  - eg through case presentations, essays, extended matching type MCQs

- Fact Gathering
  - eg traditional true/false MCQs

ESC Congress
Munich 2018
EEGC structure

– multiple choice examination
  • 120 questions
  • 3 hours
  • computer terminals in PearsonVUE centres

– current best evidence - mapped to the ESC curriculum
  • ESC guidance, ESC textbook, published clinical studies

– cardiology scenarios → question → best of 5 answers
  • 70% (84) text only
  • 20% (24) still image
  • 10% (12) video
  • UK candidates - 6 UK-specific questions to fulfil GMC regulatory requirements
EEGC governance

- Austria observer
- Cyprus first year
- Finland first year
- Germany pilot
- Greece enrolled
- Ireland enrolled
- Latvia observer
- Malta enrolled
- Netherlands enrolled
- Portugal enrolled
- Spain enrolled
- Sweden first year
- Switzerland enrolled
- UK enrolled
EEGC cycle

- Candidate registration
- Confirm cities
- Country registration
- Question writing meeting (ESC) “kick-off” NS/UEMS-cs/ESC
- Board meeting: results → NS
- Results analysis
- EEGC sitting 14th June 2018
- Exam sent to PearsonVUE

Question selection meeting:
150/120 – valvular/myocardial, IHD, arrhythmias, ACHD/non-invasive, general
10/6 UK-specific questions

Standard setting meeting:
Final 120qns, pass mark criteria

UK standard setting meeting:
Final 120qns (inc. 6 UK-specific), pass mark criteria

- Question writing meeting (Nice)
- Board meeting
EEGC construction

- all stages of exam construction supported by computer platform
  - images & video
  - standardisation of question format
  - on-line collaboration
  - real-time editing of questions
  - systematic question selection & standard setting
  - local delivery
  - question performance statistics
  - data integrity
Clinical Context
A 56-year-old man was admitted with chest pain. His ECG is shown.

Question
Enter a new question - It's recommended not to exceed 500 characters, in order to have an optimized display on exam tablets.

Answers
| A | Enter a new answer |
| B | Enter a new answer |
| C | Enter a new answer |
| D | Enter a new answer |
| E | Enter a new answer |
Clinical Context
A 56-year-old man was admitted with chest pain. His ECG is shown.

Associated media

Question
Enter a new question - It’s recommended not to exceed 500 characters, in order to have an optimized display on exam tablets.

Answers
- Reorder answers in alphabetical order

A. Enter a new answer
B. Enter a new answer
C. Enter a new answer
D. Enter a new answer
E. Enter a new answer
Clinical Context
A 56-year-old man was admitted with chest pain. His ECG is shown.

Question
What is the most appropriate treatment?

Answers
A. Enter a new answer
B. Enter a new answer
C. Enter a new answer
D. Enter a new answer
E. Enter a new answer
Clinical Context
A 56-year-old man was admitted with chest pain. His ECG is shown.

Associated media

Question
What is the most appropriate treatment?

Answers
- A primary PCI
- B thrombolysis
- C aspirin
- D clopidogrel
- E intravenous heparin
Clinical Context
A 56-year-old man was admitted with chest pain. His ECG is shown.

Question
What is the most appropriate treatment?

Answers
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>A</td>
<td>primary PCI</td>
</tr>
<tr>
<td>B</td>
<td>thrombolysis</td>
</tr>
<tr>
<td>C</td>
<td>aspirin</td>
</tr>
<tr>
<td>D</td>
<td>clopidogrel</td>
</tr>
<tr>
<td>E</td>
<td>intravenous heparin</td>
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</tbody>
</table>
Clinical Context
A 56-year-old man was admitted with chest pain. His ECG is shown.

Question
What is the most appropriate treatment?

Answers
A. aspirin
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A 56-year-old man was admitted with chest pain. His ECG is shown.

What is the most appropriate treatment?

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<thead>
<tr>
<th>Ref.</th>
<th>Clinical Context</th>
<th>Question</th>
<th>Topic</th>
<th>Author</th>
<th>Status</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>A 32-year old man with severe symptomatic b...</td>
<td>What is the most appropriate pre-operative in...</td>
<td>15. Valvular heart d...</td>
<td>Maryanne Caruana</td>
<td>Submitted</td>
<td></td>
</tr>
<tr>
<td>20533</td>
<td>These are apical four-chamber cines from the ...</td>
<td>Which genetic syndrome is most commonly as...</td>
<td>13. Congenital Heart ...</td>
<td>Maryanne Caruana</td>
<td>Submitted</td>
<td></td>
</tr>
<tr>
<td>21099</td>
<td>A fit and healthy 25-year old man was seen in...</td>
<td>What is the most likely diagnosis based on the...</td>
<td>1. History Taking and...</td>
<td>Maryanne Caruana</td>
<td>Submitted</td>
<td></td>
</tr>
<tr>
<td>21100</td>
<td>A 66-year old man was seen in the cardiology...</td>
<td>Which is the most appropriate first hyperten...</td>
<td>7. Cardiovascular pre...</td>
<td>Maryanne Caruana</td>
<td>Submitted</td>
<td></td>
</tr>
<tr>
<td>21101</td>
<td>A 23-year old healthy man was seen in the Ac...</td>
<td>What is the most likely arrhythmia to explain t...</td>
<td>1. History Taking and...</td>
<td>Maryanne Caruana</td>
<td>Submitted</td>
<td></td>
</tr>
<tr>
<td>21102</td>
<td>A 70-year old man was seen in a community ...</td>
<td>What antithrombotic treatment is indicated for...</td>
<td>25. Peripheral Artery ...</td>
<td>Maryanne Caruana</td>
<td>Submitted</td>
<td></td>
</tr>
<tr>
<td>21198</td>
<td>A 23-year old male black professional soccer player ...</td>
<td>What is the most appropriate next step in the ...</td>
<td>19. Physical activity a...</td>
<td>Kjell Christer Nikus</td>
<td>Submitted</td>
<td></td>
</tr>
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<td>21200</td>
<td>A 23-year old male black professional soccer player ...</td>
<td>What is the most appropriate next step in han...</td>
<td>19. Physical activity a...</td>
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<td>Submitted</td>
<td></td>
</tr>
<tr>
<td>21201</td>
<td>A 69-year old man with a history of hypertens...</td>
<td>Based on the clinical history and ECG findings...</td>
<td>1. History Taking and...</td>
<td>Kjell Christer Nikus</td>
<td>Submitted</td>
<td></td>
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<tr>
<td>21205</td>
<td>An 18-year old man complained of palpitation...</td>
<td>What is the most probable diagnosis?</td>
<td>10. Myocardial Disease ...</td>
<td>Kjell Christer Nikus</td>
<td>Submitted</td>
<td></td>
</tr>
<tr>
<td>21207</td>
<td>A 28-year old female athlete underwent a heart...</td>
<td>Which of the following ECG changes is most p...</td>
<td>19. Physical activity a...</td>
<td>Kjell Christer Nikus</td>
<td>Submitted</td>
<td></td>
</tr>
<tr>
<td>21210</td>
<td>A 62-year old woman with coronary artery dis...</td>
<td>Which ECG lead(s) will most probably show m...</td>
<td>9. Chronic Ischaemic ...</td>
<td>Kjell Christer Nikus</td>
<td>Submitted</td>
<td></td>
</tr>
<tr>
<td>21217</td>
<td>A 71-year old woman was found lying on the ...</td>
<td>From an diagnostic point, what would be the ...</td>
<td>8. Acute Coronary Sy...</td>
<td>Kjell Christer Nikus</td>
<td>Submitted</td>
<td></td>
</tr>
<tr>
<td>21219</td>
<td>A 78-year old woman with hypertension and t...</td>
<td>What was the most probable etiology of her E...</td>
<td>8. Acute Coronary Sy...</td>
<td>Kjell Christer Nikus</td>
<td>Submitted</td>
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A 56-year-old man was admitted with chest pain. His ECG is shown.

What is the most appropriate treatment?

A. aspirin
B. clopidogrel
C. intravenous heparin
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E. thrombolysis
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<td>4630</td>
<td>A 23-year-old man was seen in the clinic with a 3-month history of palp...</td>
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<tr>
<td>5401</td>
<td>A 28-year-old man had an electrocardiogram as part of his application...</td>
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<tr>
<td>5910</td>
<td>A 28-year-old man attended the Cardiology clinic having been found...</td>
</tr>
<tr>
<td>5469</td>
<td>A 65-year-old woman was referred for evaluation of dyspnea and a...</td>
</tr>
<tr>
<td>5517</td>
<td>A 56-year-old man presented with heart failure. He had signs of aort...</td>
</tr>
<tr>
<td>7732</td>
<td>A 54-year-old woman with a previous history of chronic heart failure...</td>
</tr>
<tr>
<td>8425</td>
<td>A 45-year-old woman with no cardiovascular risk factors presented...</td>
</tr>
<tr>
<td>8626</td>
<td>A 45-year-old man was reviewed in the outpatient department. He ha...</td>
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<td>8627</td>
<td>A 55-year-old woman presented to the emergency department with...</td>
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<tr>
<td>9122</td>
<td>A 78-year-old man with a history of hypertension, heart failure with p...</td>
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<td>9455</td>
<td>A 74-year-old woman underwent CRT-D implantation for severe left v...</td>
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<td>10946</td>
<td>A 32-year-old woman with aortic stenosis caused by a congenital bicus...</td>
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<td>20007</td>
<td>A 35-year-old man was referred for aortic valve replacement for symp...</td>
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<td>20013</td>
<td>A 35-year-old woman was admitted with a 2-week history of fever...</td>
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<td>A 35-year-old woman was admitted with a 2-week history of fever. Sh...</td>
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<td>A 69-year-old farm worker was admitted with shortness of breath. On...</td>
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<td>A 23-year-old woman who had transplantation of the great arteries with...</td>
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<td>20024</td>
<td>An 80-year-old woman presented to outpatients with a 6-week history...</td>
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<td>20025</td>
<td>A 50-year-old farm worker presented with a low-grade fever and a...</td>
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<td>20025</td>
<td>A 75-year-old man with chronic heart failure was presented with pulmon...</td>
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What is the most appropriate treatment?

A. aspirin

B. clopidogrel

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<td>A 23-year-old man was seen in the clinic with a 3-month history of pal...</td>
<td>What is the most likely diagnosis?</td>
<td>16. Infective endocarditis</td>
<td>Alexander Borg</td>
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<td>5401</td>
<td>A 28-year-old man had an electrocardiogram as part of his applica...</td>
<td>What is the most likely diagnosis?</td>
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<td>Alexander Borg</td>
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<td>5416</td>
<td>A 26-year-old man attended the Cardiology clinic having been found t...</td>
<td>What is the most appropriate management?</td>
<td>16. Infective endocarditis</td>
<td>Rafael Carlos Vital Perez</td>
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<tr>
<td>5469</td>
<td>A 65-year-old woman was referred for evaluation of dyspnea and a c...</td>
<td>Which is the cause of the mitral regurgitation?</td>
<td>15. Valvular heart disease</td>
<td>Administrator</td>
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<td>A 56-year-old man presented with heart failure. He had signs of aort...</td>
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<td>7732</td>
<td>A 54-year-old woman with a previous history of chronic heart failure c...</td>
<td>What is the next appropriate step in management?</td>
<td>17. Heart Failure (HF)</td>
<td>Administrator</td>
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<td>A 45-year-old woman with no cardiovascular risk factors presented w...</td>
<td>Which is the most appropriate next step in her management?</td>
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<td>A 55-year-old woman presented to the emergency department with s...</td>
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<td>9122</td>
<td>A 78-year-old man with a history of hypertension, heart failure with p...</td>
<td>What is the most likely cause of his heart failure?</td>
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<td>Administrator</td>
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<td>9455</td>
<td>A 74-year-old woman underwent CRT-D implantation for severe left v...</td>
<td>What is the most likely cause of her worsening symptoms?</td>
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<td>Administrator</td>
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<td>10946</td>
<td>A 32-year-old woman with aortic stenosis caused by a congenital bicus...</td>
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<td>Administrator</td>
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<td>20007</td>
<td>A 35-year-old man was referred for aortic valve replacement for symp...</td>
<td>What is the most appropriate strategy to assess for coronary artery di...</td>
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<td>Maryanne Camana</td>
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<td>20013</td>
<td>A 35-year-old woman was admitted with a 2-week history of fever an...</td>
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<td>What is the best management plan?</td>
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<td>Alexander Borg</td>
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<td>20022</td>
<td>A 60-year-old farm worker was admitted with shortness of breath. On...</td>
<td>What is the most appropriate initial treatment?</td>
<td>16. Infective endocarditis</td>
<td>Rafael Carlos Vital Perez</td>
</tr>
<tr>
<td>20023</td>
<td>A 23-year-old woman who had transposition of the great arteries with...</td>
<td>What is the most appropriate treatment 1 hour prior to her procedure?</td>
<td>16. Infective endocarditis</td>
<td>Rafael Carlos Vital Perez</td>
</tr>
<tr>
<td>20024</td>
<td>An 80-year-old woman presented to outpatients with a 6-week history...</td>
<td>The identification of which organism should prompt gastrointestinal in...</td>
<td>16. Infective endocarditis</td>
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<td>A 50-year-old farm worker presented with a low-grade fever and a re...</td>
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</table>
EEGC registrations
EEGC question performance

– review all questions with <30% correct (8 questions)
– review all questions with negative correlation (2 questions)
→ no questions excluded in 2018.
EEGC pass mark

pass mark = 68 correct answers (56.7%)
EEGC conclusions

- high-quality general cardiology exam
- strong structure and governance
  - supported by UEMS, ESC, national societies, independent University
- tests knowledge and drives learning
- delivered on computer in secure centres near to candidates
- growing
- excellent CPD!
EEGC impact

– aligned with UEMS and ESC strategic goals
– benchmark – cardiology and wider
– facilitates best educational and clinical practice
– infrastructure for other exams
– close collaboration between UEMS, ESC, NSs
– close collaboration between cardiologists.