“Looking across the pond”: Do surgical educators need to consider more emphasis on technical surgical skills in the UK’s current surgical training programme

DSZM Boctor; SBL Low; JM George
Surgical Training Pathway

**Academic pathways**
- MBBS/BSc

**Clinical pathways**
- MBBS/BSc

**Years**
- 0: FY1-2
- 1: ACF1-3
- 2: PhD
- 3: ST4-8
- 4: FY1-2
- 5: CST1-2
- 6: ST3-5
- 7: PhD
- 8: ST6-8
- 9: FY1-2
- 10: CST1-2
- 11: ST3-8
- 12: Fellowships
- 13: ST1-8

**CCT**

**Exams**
- SJT
- SST
- MRCS

**Applications**
- FPAS (1:1)
- CST (2:1) or ST1 (10:1)
- ST3 (4:1)

**Key**
- ACF = Academic clinical fellowship
- CCT = Certificate of completion of training
- CST = Core surgical training
- FPAS = Foundation programme application system
- FRCS = Fellow of Royal College of Surgeons
- MRCS = Member of Royal College of Surgeons
- SJT = Situational judgement test
- SST = Specialty selection test (currently in pilot)
- ST = Specialty training
Core Surgical Training

- Annual Review of Competence Progression (ARCP)
  - Workplace-based assessments (WBAs)
    - Case-based discussions (CBDs), Clinical examination exercises (CEXs), Directly observed procedures (DOPs)/Procedure-based assessments (PBAs)
  - Mini peer assessment tool (mini-PAT)
  - Audit reports
  - Examinations
  - Courses
  - Research activity - meetings, presentations, publications
  - Teaching
  - Logbook (Index cases)
  - Management and leadership roles
## Higher Training Shortlisting Criteria 1

<table>
<thead>
<tr>
<th>ASSESSED IN THIS SELECTION</th>
<th>DESIRABLE CRITERIA</th>
<th>0 POINT</th>
<th>1 POINT</th>
<th>2 POINTS</th>
<th>3 POINTS</th>
<th>4 POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADDITIONAL QUALIFICATIONS UNDERGRADUATE</td>
<td>Intercalated B.Sc.</td>
<td>No evidence</td>
<td>B.Sc 2:2</td>
<td>B.Sc 2:1</td>
<td>B.Sc 1st</td>
<td></td>
</tr>
<tr>
<td>ADDITIONAL QUALIFICATIONS</td>
<td>PhD/MD in progress or completed</td>
<td>No evidence</td>
<td>PhD/MD still in progress</td>
<td>PhD/MD finished but not written</td>
<td>Awaiting viva PhD/MD</td>
<td>PhD/MD</td>
</tr>
<tr>
<td>PRIZES/AWARDS</td>
<td>Undergraduate or national prize</td>
<td>No evidence</td>
<td>Undergraduate prize</td>
<td>Postgraduate prize</td>
<td>National Award</td>
<td>International award</td>
</tr>
<tr>
<td>TRAINING COURSES</td>
<td>Courses relevant to cardiac and thoracic surgery</td>
<td>No Evidence</td>
<td>Core skills</td>
<td>Basic cardiac and thoracic skills courses</td>
<td>Intermediate Skills Courses</td>
<td>DSTS, DTS, TOE, VAT courses</td>
</tr>
</tbody>
</table>
# Higher Training Shortlisting Criteria 2

<table>
<thead>
<tr>
<th>ASSESSED IN THIS SELECTION</th>
<th>DESIRABLE CRITERIA</th>
<th>0 POINT</th>
<th>1 POINT</th>
<th>2 POINTS</th>
<th>3 POINTS</th>
<th>4 POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRESENTATIONS</td>
<td>National or International presentation</td>
<td>None</td>
<td>Departmental presentation</td>
<td>National&lt;2</td>
<td>National&gt;3</td>
<td>International</td>
</tr>
<tr>
<td>PUBLICATIONS</td>
<td>Peer review journal publications</td>
<td>No evidence</td>
<td>Non peer review journal or Single case report/published abstracts</td>
<td>Peer review Journal &lt; 2 publications</td>
<td>Peer review journal 2 or more publications</td>
<td>Peer review journal 5 or more publications</td>
</tr>
<tr>
<td>RESEARCH SKILLS</td>
<td>Taking part in research/ principal investigator</td>
<td>No research</td>
<td>Taking part in research</td>
<td>Key member of research team</td>
<td>More than one research project completed</td>
<td>Principal Investigator/ Co investigator on a peer reviewed grant</td>
</tr>
<tr>
<td>AUDIT</td>
<td>Experience of Audit</td>
<td>No evidence</td>
<td>Participated in Audit but incomplete</td>
<td>Audit completed but loop not closed</td>
<td>Initiated and managed the audit, loop completed</td>
<td>Evidence of sustained in practice as a consequence of audit</td>
</tr>
</tbody>
</table>
European Working Time Directive (EWTD)

- Law passed by European Parliament
- Accepted into UK law
- Based on Health and Safety principles
- All EU workers
- Dictates:
  - 56 hrs/week from August’07 and 48 hrs by August’09
  - Rest requirements
Disadvantages

• Decreased time spent in active training programs

• Lack of continuity in patient care

• Dependence on rota management and staffing adequacy
WHAT IS THE IMPACT???
Literature

• Less time spent in theatres (DOH and Social security 1971)

• Exposure to operative cases have reduced by 20% (Stevens et al 2007; Garg et al 2003)

• Perceptive: Operative ability has reduced (Parsons et al 2007)
  – 90% of SpRs, 84% of SHOs – ↓ operative ability
  – 88% SpRs, 76% SHOs – ↓ surgical training
Literature

• **Objective:** Operative ability has reduced (Parsons et al 2007)
  – Old vs current training - 90% vs 28% could perform open appendicectomy (unsupervised) at the end of SHO training

• No study has looked at how much junior surgical residents practise their surgical skills
Our study is the **FIRST STUDY** to quantify the time spent by junior surgical residents practising their surgical skills.
OUR STUDY
Methods

- Questionnaire study
- 83 UK junior surgical doctors
Questionnaire: 5 questions

• 1. Which of the following best describes your current job level?

• 2. Outside of working hours, IN AN AVERAGE WEEK, HOW MUCH TIME (MINUTES/ HOURS) would you say you spend doing training/career-related things
Questionnaire: 5 questions

• 3. Outside of working hours, IN AN AVERAGE WEEK, HOW MUCH TIME would you say you spend on practising your SURGICAL/TECHNICAL SKILLS?

• 4. Outside of working hours, IN AN AVERAGE WEEK, HOW MUCH TIME (MINUTES/ HOURS) do you feel it would be important to spend practising your surgical/technical skills?
Questionnaire: 5 questions

• 5. If your answer to Question 4 is GREATER than your answer to Question 3:
  – Outside of working hours, what areas of training/career-related activities do you think surgical trainees should spend less time on?
  – Feel free to make any other comments you feel strongly about.
Results

• 31 responders
• Ideally: 168 mins/week to practise surgical skills
• Reality: 38 mins/week
• Paperwork commitments ➔ Discrepancy
Discussion

- Simulation
- Mental imagery
- Distributed learning
Conclusion

• First study to quantify time spent on practising surgical skills by junior trainees

• Surgery = Craft skill
  – 10,000 hours in deliberate practice for expertise; Ericsson 2004

• Consider diversion of time spent on paperwork to surgical skills