Teaching in the autopsy room: experiences from Denmark and other low-rate countries

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Joint session autopsy pathology/IT in pathology: a perspective of education and training in pathology

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Autopsy rates according to WHO

https://gateway.euro.who.int/en/indicators/hfa_545-6410-autopsy-rate-for-all-deaths/
Possible reasons

• Religion, traditions, beliefs, practices
• Legislation (body belongs to state or to relatives)
• Economic burden
• Manpower
Autopsy rates by countries, according to WHO

No data available (14 countries): Albania, Andorra, Belgium, Bosnia and Herzegovina, France, Germany, Greece, Italy, Monaco, Montenegro, Poland, San Marino, Slovenia, Spain.

https://gateway.euro.who.int/en/hfa-explorer/#rk3sd09Vn1
Possible reasons

- Clinical colleagues
- Religion, traditions, beliefs, practices
- Legislation (body belongs to state or to relatives)
- Economic burden
- Manpower
Economic burden
G-DRG (diagnosis related groups)

- DRG’s were initially not considered as a tool for interdepartmental budget planning
- Some specialties are not even specifically included
- In this system, there is a flat rate allocated for all pathological examinations (0.5%)
- No payment for external examinations, second opinions etc
- DRG’s do not take quality assurance into consideration
- Medical insurance ends with death of the patients, no further payment, including for death certificates
Economic burden

• Merger between pathology departments of different hospitals/hospital sites with minimal remaining staffing
• Closure of governmental hospitals
• Outsourcing of pathology services (to private laboratories)
• **Increasing number of locum workers without any connection to hospital**
• Increasing costs (power, gas, insurance etc)
Economic burden

• Lack of renumeration of postmortem examination in countries without coroners autopsies restricts postmortem examinations often to macroscopic level examination
• Autopsies are often performed by most junior staff
• Not seldomly without supervision
• Reports very limited
• Reports often do not address the clinical question
Possible reasons

• Religion, traditions, beliefs, practices
• Legislation (body belongs to state or to relatives)
• Economic burden
• Manpower
## Manpower (data from 2004)

<table>
<thead>
<tr>
<th>Country</th>
<th>Bulgaria</th>
<th>Serbia</th>
<th>Germany</th>
<th>Netherlands</th>
<th>France</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population (in thousands)</strong></td>
<td>7.201</td>
<td>8.893</td>
<td>80.646</td>
<td>16.868</td>
<td>64.121</td>
</tr>
<tr>
<td><strong>Number of pathologists</strong></td>
<td>~100</td>
<td>~100</td>
<td>1473</td>
<td>~600</td>
<td>1476</td>
</tr>
<tr>
<td><strong>Pathologist per capita</strong></td>
<td>~72.010</td>
<td>~88.930</td>
<td>54.749</td>
<td>28.113</td>
<td>43.442</td>
</tr>
</tbody>
</table>

**Report of the National Task Force on Medical Staffing**

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Duty Roster</th>
<th>2009 Implementing EWTD</th>
<th>2013 Consultant-provided service</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Per head of population*</td>
<td>Consultants per 350,000 population</td>
</tr>
<tr>
<td>Histopathology Cytology</td>
<td>Infrequent on-call</td>
<td>1 / 38,000</td>
<td>7</td>
</tr>
<tr>
<td>Sub-total</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>

Recommended numbers for pathologist staffing of Hanly report refer to full time employment.
Numbers are calculated for histological workload without autopsy services.
Over the last decade, pathology workload increased with up to 30%, whilst pathology staffing decreased with up to 17%.

Not an attractive field

• Pressure from superiors to finish fast without supervision and often without histology
• Feeling of being left alone for finishing minimum requirements

• Minimum requirements
  – Read clinical records in detail
  – Read operative notes and talk to the surgeon
  – Talk about procedure and complications during the surgery
  – Identify all incisions, access sites, cannula, pacing wires etc
  – Examine all surgical anastomoses and operation sites
  – Inspect costal angles, and all spaces. Document effusions.
  – Know your limitations! Refer to someone who will be able to do appropriate dissection!
  – Know your limitations!!!!! Every autopsy is potentially a medico-legal case or may be important for relatives as it may represent a case of inheritable disease
Solutions

Traditions, beliefs, practices

Be specific, address the clinical questions in your report
  – It is helpful in increasing autopsy rates in pediatric population
  – If necessary, participate together with clinical colleagues in discussion with relatives of the deceased

Create reliable data whilst implementing databases, cancer registries, documenting treatment effects etc
Work on making autopsy service more attractive in the future

• Despite economic pressure, always take histology and freeze tissue/blood whenever possible!

-> BIOBANK

-> helps also to raise awareness of the field and potentially improves status of residents committed to high quality autopsy service
Solutions

• Economic burden

► Even though no direct payment budgeted, pathological examinations are an essential part of the treatment and are mirrored via
  ► Diagnosis (no treatment of malignancy without histological confirmation)
  ► Operations (no payment for cholecystectomy without histology report)

► ? Involve medical insurances in the process?

► Autopsy: quality assurance for oncologic treatment, surgery, transplantations etc....

► Certain life insurances do not pay out without autopsy reports!
Solutions

Manpower

• Try to speed up the process
• Keep or introduce „prosector“ position
• Supervision of residents by pathologist specialized in the respective field
• Recruit, recruit, recruit possibly from early courses of medical school and try to bind your medical staff to the department (voluntary research or journal clubs, pathology circle etc).
Solutions

• Make it more attractive

• Giving importance/credit to others
  – Raising awareness of importance of postmortem examination for relatives, treatment effect, outcome, ....
  – Multicenter studies within working group
  – Engagement in registries
  – Possibility for subspecialization, presentation
„Mortui Vivos Docent“

Thank you for your attention!