EDUCATIONAL BLUEPRINT FOR GERIATRICS TRAINING

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FUTURE OF GERIATRIC MEDICINE
AGS TASKFORCE RECOMMENDATIONS

1. Ensure every older person receives high quality, patient-centered health care
2. Expand Geriatrics knowledge base
3. Increase number of healthcare professionals who employ geriatric principles
4. Recruit physicians and other healthcare professionals in geriatric medicine
5. Unite professionals and lay groups in effort to influence public policy
Aging Population

and

Familiar scenarios in acute care

• Catheterising confused demented patient
• Venepuncture in patient with dementia
• Dehydration and delirium, cot sides up, jug by bedside
• Patient with dementia with assertive relative trying to dominate the conversation
One of the study's authors, Dr Lim Wee Shiong, a senior lecturer at NUS Medicine's department of medicine, said: "Many students never had the chance to speak to elderly patients unless they had grandparents."

Straits Times May 13, 2015
Respect patients regardless of age
• Recognise that ageism can affect the optimal care of older people
• Heterogeneity of older people & view each

Normal & abnormal structure & function, including the natural history of human diseases, the body’s defence mechanisms, disease presentation & responses to illness

Acquire skills needed to conduct a history & perform an assessment in an older patient

Safe prescribing & medication adherence
European undergraduate curriculum in geriatric medicine developed using an international modified Delphi technique. Age and Ageing 2014; 43: 695–702.
Recognise the importance of responses to illness, providing help towards recovery & reducing or managing impairments & disabilities
- Define the concept of frailty in older people
- ICF – International Classification of Functioning, Disability and Health

Understand the main ethical & legal issues in the international & national context they will come across
- Artificial nutrition & feeding
- Cardiopulmonary resuscitation decisions
- Withdrawal & withholding of medical treatment

Understand and respect the roles & expertise of other health & social care professionals

Care of older patients in different settings

Specific aspects relevant for health & social care for older persons in their region/country
## Geriatric Education in Old and New Curriculum

<table>
<thead>
<tr>
<th>Year</th>
<th>OLD CURRICULUM</th>
<th>NEW CURRICULUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>2 Lectures on Demographics</td>
<td>Integrate aging into normal and abnormal structure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(work in progress)</td>
</tr>
<tr>
<td>Year 2</td>
<td>NIL</td>
<td>2 weeks module on Foundations in Geriatric Medicine</td>
</tr>
<tr>
<td>Year 3</td>
<td>NIL</td>
<td>a) 3’approach to’ tutorials embedded within Medicine postings on elderly with frequent falls, altered mental status and multiple medical problems</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Visit to step-down care, nursing homes community facilities within the Family Medicine postings</td>
</tr>
<tr>
<td>Year 4</td>
<td>NIL</td>
<td>Psychogeriatrics within Psychiatry</td>
</tr>
<tr>
<td>Year 5</td>
<td>2 weeks Clinical Posting</td>
<td>a) 3 weeks Internship style posting in Geriatric Medicine wards</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Geriatric tutorials within surgical posting</td>
</tr>
</tbody>
</table>
PHASE 2: FOUNDATIONS IN GERIATRIC MEDICINE
Bridge between pre-clinical and clinical

SCHOOL OF PUBLIC HEALTH
Epidemiology, Demographics, Prevention

EDUCATIONIST
Oral Health and Nutrition

GERIATRICIAN
Functional Consequences 3 D’s Communication

ETHICIST

DIETITIAN

PATHOLOGY
Normal and abnormal organ structure with aging.

NUS PHARMACOLOGY
Safe Prescribing and ADE.

COMMUNITY REHAB PHYSICIAN

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PHASE 2: FOUNDATIONS IN GERIATRIC MEDICINE
Bridge between pre-clinical and clinical

Two-week module at the end of Phase II

Highly integrated and interdisciplinary

Mixed learning experience (didactic 40% and experiential 60%)

Assessment contains both knowledge and clinical skills
Physiology of Aging and Functional Impairments related to normal aging and disease

Principles of Geriatric Pharmacology

Cognitive and Behavioral Issues in Aging

Approach to the Older Person

Health Care Services for the Elderly

Rehabilitation and Maintenance of Function in Older People & Demonstration of Assistive Devices

Health Promotion and Nutrition

Theories of Aging and Human Longevity

FOUNDATIONS IN GERIATRIC MEDICINE

Didactic Teaching

Health Care Services for the Elderly

Rehabilitation and Maintenance of Function in Older People & Demonstration of Assistive Devices

Health Promotion and Nutrition

Theories of Aging and Human Longevity

Physiology of Aging and Functional Impairments related to normal aging and disease

Principles of Geriatric Pharmacology

Cognitive and Behavioral Issues in Aging

Approach to the Older Person

Health Care Services for the Elderly

Rehabilitation and Maintenance of Function in Older People & Demonstration of Assistive Devices

Health Promotion and Nutrition

Theories of Aging and Human Longevity
Foundations in Geriatric Medicine: Experiential Learning: 3 workshops

1. Clinical Skills in Geriatrics: history taking and CGA
2. Mental State Assessment
3. Activity limitation and participation restriction

“sensitize students to the process of ageing”

employ real-life immersive experience

Facilitated simulated patient session
Workshop 1: Clinical skills in Geriatrics: history taking and examination

- Interview standardized patient with vision and hearing impairment attending Emergency Department after a fall

- Case Scenario 2 (PILLS, PILLS & PILLS)
  - Interactive “hands-on” experience with poly-pharmacy
Case Scenario 2
PILLS, PILLS & PILLS

You are the patient and given
this list of medication.
You have ‘cataract’,
peripheral neuropathy
(masking tape on fingers) and
hearing impaired(cotton wool
in ear).

1. carvedilol 25mg bd
2. glucobay 50mg tds
3. mixtard 30/70 24U om 8U on
4. ventolin 2puffs tds/prn and
   becotide 2 puffs bd
5. digoxin 125mcg om
6. escitalopram 10mg on
7. madopar 125mg qds
8. senna 2 tablets on
9. allopurinol 100mg om
10. enalapril 10mg om 5 mg on
11. celebrex 200mg om
12. frusemide 40mg bd
13. span K 1 tab om
14. colchicine 500mcg alternate
days
15. warfarin 1mg alternate with
   1.5mg om
REFLECTION…

In the patient’s shoes

‘I can’t function!’ I exclaimed in frustration as I dropped another pill on the ground, yet again. I could hardly read the labels of each medication – even if I could, I had trouble placing the pills in the pillbox…..

Raging tempers swept across the room, as the once mighty and able-bodied medical students turned into frustrated patients restricted by their dulled senses and numerous impairments.

Suppose that you are the 67-year-old woman – the patient: vision, hearing and sense of touch.

to instructions on the packet, draw up the insulin according to the prescribed dose and attempt

THE CLINICAL TEACHER 2014; 11: 1–2
WORKSHOP 2: Mental State Assessment

To appreciate the importance of assessing mental function in the evaluation of frail older adults

To be able to discuss and differentiate between dementia, depression and delirium (3D’s)

Demonstrate ability to:
- perform the Abbreviated Mental Test (AMT)
- screen for depression using the 15-item version of the Geriatric Depression Scale (GDS-15)
- Recognize delirium using CAM
**Workshop 2: Mental State Assessment Scenario**

- Mr Tan 75 year old man
- Only speaks Chinese
- Concerned he might be losing memory
- Lost interest in playing mahjong
- Wife died 2 years ago

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**Early Alzheimer’s Dementia**

**Depression**

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- Mr Tan
- 3 months later, admitted after a fall
- Has hip fracture
- Picking in the air
- AMT 2/10
- Drifts off during test without answering question

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**Delirium**
Facilitated Simulated Patient Sessions in Mental-state Examination Teaching

- 12–15 students facilitated by an experienced faculty member
- SPs who had undergone prior training in role-play and giving feedback
- SP provided immediate feedback and served as the resource person for controversial issues (scale appropriate culturally)
- SP-teaching workshops were thought to be effective for learning MSE skills by 97.7% of students

- 96.5% agreed on their usefulness for future patient encounters
- **Poorer attitude towards elderly** associated with less effective learning during SP session but non-significant in the presence of effective facilitator
- **Importance of enhancing SP feedback and facilitator effectiveness in optimising the learning experience even for those with poor attitude towards elderly**

Chin Yee Cheong, Reshma A Merchant, Nicola S P Ngiam & Wee-Shiong Lim Medical Education 2015; 49: 1139–1167
Facilitated Simulated Patient Sessions in Mental-state Examination Teaching

Qualitative analysis identified four main themes that facilitated learning during the workshop:

- Authenticity and relevance of scenarios
- Bridging of the theory-practice divide
- Useful feedback from the SP
- Active experiential learning
Workshop 3: Activity Limitation and Participation Restriction

Discussion and application of Barthel Index

Interventions for activity limitation
- Rehabilitation
- Walking aids

Goals:

“Choosing the Appropriate Assistive Device (Gait Aid): A Card Sorting Activity”

Hands on use of walking aids with simulation of activity limitation

The new Foundations in Geriatric Medicine module in the New Curriculum improved both the geriatric knowledge using the UCLA-GKT (P<0.001) and geriatric attitudes using the UCLA-GAT Score (P<0.001).

### Geriatric Attitude Test (GAT) scores
**Between M2 and M5 in the Old and New Curriculum**

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean UCLA Geriatric Attitudes Test (GAT) Score (SD)</th>
<th>P-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M2</td>
<td>M5</td>
</tr>
<tr>
<td>Old Curriculum (n=150)</td>
<td>3.07 (0.25)</td>
<td>3.67 (0.40)</td>
</tr>
<tr>
<td>New Curriculum (n=139)</td>
<td>3.10 (0.24)</td>
<td>3.68 (0.36)</td>
</tr>
</tbody>
</table>

* Using the paired two-sample t-test
## Change in Geriatric Attitude Test (GAT) scores from M2 to M5 Between Old and New Curriculum

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<thead>
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<th>Old Curriculum (n=150)</th>
<th>New Curriculum (n=138)</th>
<th>P-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in UCLA Geriatric Attitudes Test* (GAT) Score from M2 to M5 Between Old and New Curriculum (SD)</td>
<td>+0.60 (50)</td>
<td>+0.57 (0.46)</td>
<td>0.595</td>
</tr>
</tbody>
</table>

* Using the two-sample independent t-test

[Note: There was no statistical difference between old and new curriculum in terms of gender (p=0.841) or ethnicity (p=0.186).]
Geriatric Knowledge Test (GKT) scores Between M2 and M5 in the Old and New Curriculum

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean GKT Score (UCLA) in M2 (SD)</th>
<th>Mean GKT Score (University of Michigan, UOM) in M5 (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old Curriculum (n=141)</td>
<td>32.0 (15.1)</td>
<td>59.9 (12.8)</td>
</tr>
<tr>
<td>New Curriculum (n=133)</td>
<td>36.4 (15.1)</td>
<td>64.8 (13.1)</td>
</tr>
</tbody>
</table>

Using ANOVA and adjusting for UCLA GKT score in M2, the mean UOM GKT score in M5 is higher in the new curriculum group than the old curriculum group (p=0.007).
CURRICULUM REFORM IS A JOURNEY