GHANA COLLEGE OF PHYSICIANS AND SURGEONS

FACULTY OF FAMILY MEDICINE

CURRICULUM FOR FELLOWSHIP TRAINING
IN
GERIATRIC MEDICINE

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Ghana College of Physicians and Surgeons

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LIST OF ABBREVIATIONS

AADL .... Advanced Activities of Living
ACE .... Acute Care for the Elderly
ACGME .... Accreditation Council for Graduate Medical Education
ADL .... Activities of Daily Living
DFM .... Department of Family Medicine
GCPS .... Ghana College of Physicians & Surgeons
GRACE .... Geriatric Resources for Assessment and Care of Elders
IADL .... Instrumental Activities of Daily Living
JRCPTB .... Joint Royal Colleges Physician Training Board
KBTH .... Korle-Bu Teaching Hospital
PACE .... Programs of All-Inclusive Care for the Elderly
POMA .... Performance-Oriented Mobility Assessment
STEM .... Science, Technology, Engineering and Mathematics
UGSMD .... University of Ghana School of Medicine and Dentistry
UM .... University of Michigan
UMAPS .... University of Michigan African Presidential Scholars Program
UMHS .... University of Michigan Health Systems

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1. INTRODUCTION TO CURRICULUM DEVELOPMENT

Geriatrics or geriatric medicine is the medical specialty focusing on health care of the older adult. Its goal is to promote health by prevention and treatment of diseases and disabilities in older adults. It is related to gerontology which is the study of the ageing process. Geriatric Medicine is one of the sub-specialty tracks (special interest areas) in the fellowship programme of the Faculty of Family Medicine, Ghana College of Physicians and Surgeons. The curriculum gives a background which highlights the problem of geriatric care in Ghana and justifies the need for a training programme. It then outlines the intended learning outcomes designed to equip the trainees to manage the health of older adults in different settings of health delivery. The course organization, implementation, monitoring and evaluation of the curriculum also are outlined among other things.

The curriculum is based on the philosophical concepts of patient-centeredness with regard to skills and attitudes towards patient care; and learner-centered approaches to teaching and learning.

In developing the curriculum, the writers drew from the experiences of various bodies, organizations and experts. Prominent among these were documents from ACGME Program Requirements for Graduate Medical Education in Geriatric Medicine, 2015, the Specialty Training Curriculum for Geriatric Medicine August 2010 (Amendments August 2013) by the JRCPTB and the University of Michigan Geriatric Fellowship Program Manual 2016-2017. The acknowledgements section lists the various experts whose contributions shaped the curriculum. An attempt has however been made to contextualize the curriculum to the Ghanaian situation. The process involved an initial draft based on extensive review of various curricula and documents on geriatric medicine. The first draft was reviewed by the curriculum development project team of family physicians, educational and curriculum experts. Their inputs were constituted into a second draft which was reviewed by geriatric and palliative medicine experts, the project team and other stakeholders in University of Michigan and Ghana. The third draft was circulated to the project team for approval and a final copy submitted to the Academic Board of the Ghana College of Physicians and Surgeons.

It is the hope and aspiration of the developers of the curriculum that it will become the foundation for an organized and sustained system of geriatric teaching, research and service delivery throughout academic and health institutions in Ghana.

2. TERMINOLOGY – in this document, 'fellow' refers to the senior resident in training, i.e. a candidate who has already completed a 3-year residency training in family medicine.

3. BACKGROUND TO GERIATRIC MEDICINE IN GHANA

3.1. The Problem Identification

The elderly population globally is expanding dramatically. With improvements in survival and treatment of acute and chronic diseases, life expectancy has likewise increased in sub-Saharan Africa (1). Ghana has a population of about 25 million and an estimated elderly (60+) population of 7.4% (2, 3). This proportion is projected to rise to 11.9% by 2050 (1). Life expectancy at birth has increased from an average of 52 years in 1984 to 63 years in 2013 for both sexes (4). The demographic change in older persons in Ghana has significance in the prevalence of chronic diseases and the quality of life of the elderly population. Recent studies among the elderly in Ghana (5) reported prevalence of some chronic conditions such as: hypertension 54.6%, arthritis 14% and depression 9.2%. Only 41% of them reported their health status as 'good'. Besides, educational levels among the elderly in Ghana are low, with more than two-thirds of women over 60 and more than a third of men over 60 having no formal education (3).

3.2. Needs Assessment

Ghana has no structured health delivery plan for the elderly population. A national ageing policy was formulated since 2003 but has yet to be implemented. The elderly are managed as part of the general population at our health facilities. Religious bodies, non-governmental organizations and individuals operate community care facilities for the elderly but they are largely inadequate, unstructured and unsupported by trained medical personnel. Until recently, there were very few studies focused on the health of the elderly. There is lack of data on available health services and a general lack of skilled health delivery to the elderly. There are no geriatricians and no geriatric teaching and training in our academic and health institutions.

3.3. Rationale for the Curriculum

In diverse ways, elderly people contribute positively to the development of the country, such as transfer of knowledge, skills, experience and expertise to the younger generation. They provide historical facts which help to enrich national debates and shape history. They help to foster

national and community cohesion and often serve as reliable custodians of tradition and custom. As grandparents in the extended family system still practiced in Ghana, they relieve the working population by taking care of grandchildren. Some work as volunteers for religious organizations and others donate to charity. Our institutions of higher learning have a sizeable number of high ranking elder persons contributing to ensure excellence in teaching and research. The quality of life of the elderly should therefore be of major concern to society. Today's society has been built thanks to efforts deployed by previous generations who should be guaranteed better living conditions, but society has yet to respond adequately to this challenge as elderly people's access to efficient health care service and other conditions that affect them continue to be limited. Therefore, it is important to put measures in place to ensure successful ageing for this population. One critical measure is the training of medical doctors and other health professions to provide a structured healthcare for the elderly population.

3.4. Benefits of Geriatric Medicine

A programme to care for older adults has significant benefits not only for the patient and family/caregivers but for the health system and nation as a whole. These include but are not limited to:

1) Increased patient and family satisfaction.
2) Better and comprehensive care to elderly patients with multi-morbid conditions as well as managing poly-pharmacy efficiently.
3) Decreased time as an inpatient in a hospital or nursing home.
4) Greater wellness and preventive care that helps patients maintain functional independence in performing activities of daily living.
5) Decreased rates of depression and preservation of physical function.
6) An interdisciplinary approach to patient care in health delivery.
7) Cost-effective healthcare for elderly persons.
8) Improved social functioning of the elderly in their families and communities.

4. INTENDED LEARNING OUTCOMES (Refer accompanying portfolio)

4.1. Competencies

At the completion of fellowship training, the fellow in training should be able to:

1) Establish a diagnostic plan for elderly patients presenting with specific and non-specific clinical features by appropriate use of history, clinical examination, investigations and the interpretation of the results.
2) Demonstrate knowledge, skills, and experience to develop management plans for each patient, and caregiver (where indicated), including treatment, rehabilitation, health promotion, disease prevention, nutrition and longer term management.
3) Develop treatment plans based on knowledge of available local, regional and national resources for geriatric care.
4) Demonstrate appropriate attitudes and communication skills to effectively manage patients, their families and caregivers to ensure the diagnosis is clearly understood and the treatment plan is developed collaboratively.
5) Provide consultative services for ambulatory, inpatient, and institutional care across health care providers, institutions, governmental and non-governmental agencies.
6) Work effectively within and maximally utilize a multidisciplinary team of physicians, nurses, social workers, physical and occupational therapist etc. to promote the optimal recovery of patients and plan their safe transfer of care between all relevant settings.
7) Collaborate with academic, governmental and non-governmental institutions to promote the healthcare of the elderly within the existing policy framework.
8) Conduct high quality research in relevant aspects of geriatric health care.
9) Teach and supervise medical students and residents, nurses and other health-related professionals in the care of the elderly.

4.2. Attitudes

The fellow should demonstrate attitudes that embrace:

1) Awareness of the effects that attitudes and stereotypes related to aging, disability, and death can have on the care of elderly patients.
2) Empathy and compassion towards the elderly and assisting them to cope with inevitable decline and loss.
3) Promotion of the patient’s dignity through self-care and self-determination.
4) Recognition of the importance of family and home in the overall lifestyle and health of patients.

5) Understanding when there should be appropriate limitation of investigation and treatment for the benefit of the patient.
6) Awareness of the importance of a multidisciplinary approach to the enhancement of individualized care.
7) Accessibility to and accountability for his or her patients.
8) Mindfulness of the importance of limiting cost as appropriate when treating elderly patients.
9) Awareness of the benefits, limitations, and appropriate use of advance directives, living wills, and durable powers of attorney.

4.3. Knowledge

In the appropriate clinical setting, the fellow should be able to apply knowledge of:

1) Current Science of Ageing and Longevity
    a. Definitions, classifications and theories of ageing.
    b. The process of normal ageing in humans.
    c. The effect of ageing on organ systems and homeostasis.
    d. Ageism and strategies to counteract it.
    e. Demographic trends on ageing globally and in the Ghanaian context.
2) Comprehensive Geriatric Assessment (CGA)
    a. Background and indicators to CGA.
    b. Conducting the assessment – the team, framework and tools.
    c. Gathering of information – reason for encounter; initial screening of vision, hearing, cognition; biomedical, psychological and social data; summary scales for function (ADLs, IADL, POMA etc.).
    d. Physical examination, mental state examination, investigations and interpretation of results.
    e. Components of the assessment - core domains are: diagnoses or problems, cognition, mood, medication, nutrition, continence, defaecation, mobility, functional capacity, social support. Other domains include sexual function, dentition, living situation, and spirituality.
    f. Development of care plan – goals of care and 'do not resuscitate' (DNR); involvement of patient and caregivers.
    g. Monitoring for outcomes of care.

3) Common Geriatric Problems (Syndromes)
   a. Delirium and dementia.
   b. Depression.
   c. Falls and syncope assessment – including fractures and osteoporosis.
   d. Immobility – including locomotor disorders and Parkinson's disease.
   e. Incontinence – urinary and faecal.
   f. Cerebrovascular disease - stroke and transient ischaemic attack (TIA).
   g. Hearing and visual loss.
4) Presentations of Other Diseases and Conditions in Older Persons
   a. Atypical presentations of diseases in older persons.
   b. Cardiovascular – chest pain, arrhythmias, hypertension, heart failure.
   c. Respiratory – cough, dyspnoea, haemoptysis, chronic obstructive pulmonary disease, emphysema.
   d. Gastrointestinal – dysphagia, vomiting, altered bowel habit, constipation, faecal impaction and jaundice.
   e. Endocrine – hyperglycaemia, thyroid dysfunction, hypothermia.
   f. Renal – fluid and electrolyte imbalance, renal failure, lower urinary tract symptoms.
   g. Neurological – seizures, tremor, altered conscious level, movement disorders, language and speech disorders.
   h. Sensory loss – neuropathy.
   i. Psychiatric – anxiety, sleep disorders.
   j. Dermatological – pruritus, rashes, leg ulcers, pressure sores, corns, calluses, bunions and hammer toes.
   k. Musculoskeletal – joint pain and stiffness, degenerative joint disease.
   l. Non-specific – fever, dizziness, fatigue, anaemia, suspected abuse, weight loss and malnutrition.
5) Pharmacological Problems Associated with Ageing
   a. Changes in pharmacokinetics and pharmacodynamics in older people.
   b. Adverse drug reactions (ADR) and adverse drug events (ADE).
   c. Management of ADE.
   d. Polypharmacy.

e. Herbal medicines and herbal medicine mix.

6) Settings for Management of Older Persons
   a. Health facility care - Acute care in outpatient and emergency settings, inpatient care.
   b. Home and community facility care - home care, day care, retirement communities, hospice.
   c. Specialized units and programmes – concepts of ACE, PACE, GRACE, Guided Care etc.
   d. Determinants of successful transfers of care outside hospital which meet patient and caregiver perspectives and needs.
   e. Knowledge of the range of interventions such as physical treatments, aids, appliances and adaptations, and a knowledge of specialist rehabilitation services available.
   f. An appreciation of the medical and social models of management of functional limitation due to ageing and disease.
   g. Requirements, roles and expertise of the different members of a multidisciplinary team.
   h. General principles of geriatric rehabilitation, including those applicable to patients with orthopaedic, rheumatologic, cardiac, pulmonary, and neurologic impairments.
7) Ethical and Legal Issues
   a. Assessment of capacity.
   b. Appointment of Durable Power of Attorney.
   c. Guardianship.
   d. Advance Directives.
   e. Legislation surrounding long and intermediate term care.
   f. Decisions regarding life-prolonging treatments.
   g. Consent procedures.
8) Management and Administration
   a. Structure of the NHIS, its financing and organization with regard to geriatric care.
   b. Clinical governance and its relevance in geriatric medicine.
   c. Principles of the appraisal process.
   d. Administrative duties relevant to a consultant geriatrician; including the workings of committees, service development and relevant employee law.
   e. Methods of dealing with complaints.
   f. The legal framework for care of older adults in Ghana.

9) Disease Prevention and Health Promotion
   a. Healthy adult lifestyle.
   b. Benefits of a healthy lifestyle in older age, including adequate nutrition, oral health, physical activity, smoking cessation and moderating alcohol intake.
   c. Specific techniques for disease prevention in older persons including screening, immunizations and chemoprophylaxis.
   d. Techniques of risk reduction for relevant syndromes (e.g. stroke).

10) Psychosocial Factors Relating to Care of Older Persons
   a. Psychosocial aspects of ageing – i.e. interpersonal and family relationships, living situations, adjustment disorders, depression, bereavement, anxiety etc.
   b. Patient and family/caregiver education, and psychosocial and recreational counseling for patients requiring rehabilitation care.
   c. Behavioural aspects of illness, socioeconomic factors, and health literacy issues.
   d. Cultural aspects of ageing, health care status of older persons of diverse ethnicities, access to health care, cross-cultural assessment of culture-specific beliefs and attitudes towards health care, issues of ethnicity in long term care, and special issues relating to urban and rural older persons of various ethnic backgrounds.
   e. Caregiver issues.
   f. Spiritual issues.

11) Palliative and End-of-Life Care
   a. Purpose of palliative and end-of-life (hospice) care.
   b. Basic pathophysiology of pain.
   c. Natural progression of age-related diseases to point of palliative intervention.
   d. Referral criteria to hospice care.
   e. Assessment and management of the patient with advanced illness.
      i. Pain control.
      ii. Causes and treatment of non-pain symptoms.
      iii. Nutrition and hydration.
      iv. Negotiating goals of care.
      v. Non-medical services and psychosocial support.
      vi. Ethical and legal issues.

f. Prognostication – factors that help predict outcome for terminal illness.
g. Settings for providing palliative care.
h. Interdisciplinary teamwork in hospice care.
i. The bereavement process.

12) Research
a. Research methodologies related to geriatric medicine, including epidemiology and decision analysis.
b. Basic principles of research, including how research is conducted, evaluated, explained to patients, and applied to patient care.
c. Basic statistics.

13) Miscellaneous Topics
a. Sexuality and ageing.
b. Women and ageing.
c. Spirituality and ageing.

4.4. Skills

In the appropriate setting, the fellow should demonstrate the ability to:

1) Perform comprehensive, standardized geriatric assessments for physical, cognitive, emotional, and social functioning as appropriate.
2) Develop problem lists in practical, clinical, functional, psychological, and social terms.
3) Set appropriate priorities and limitations for investigation and treatment.
4) Integrate factors of the patient's family life, home life, and general lifestyle into the diagnostic and therapeutic process.
5) Treat and manage geriatric patients in acute, long-term, community and home care settings.
6) Utilize critical care resources appropriately including dealing with ethical issues, decision-making capacity, euthanasia, assisted suicide, health care rationing, and palliative and end-of-life care.
7) Communicate effectively with patients, families or caregivers, professional colleagues and community groups in a way that promotes understanding, adherence, continuity of care and appropriate attitudes.
8) Utilize quality improvement methods to analyze practice and implement changes to improve practice.

9) Comprehensively scrutinize medical literature and preferably to have personal experience of involvement in basic science or clinical (health services) research.
10) Teach medical students, residents and other health professionals.
11) Provide leadership in a multidisciplinary geriatric health service team.

5. PROGRAMME ORGANIZATION

5.1. Eligibility Criteria

1) Membership of either Ghana College of Physicians (MGCP) or West Africa College of Physicians (MWACP) in the Faculty of Family Medicine.
2) Post membership work experience in Ghana of at least one year spent in a district hospital or polyclinic with a comprehensive practice.
3) Registration with the Ghana Medical & Dental Council as a Specialist Family Physician.
4) Passed a selection interview.

5.2. Structure of Fellowship Programme

1) Duration will be two years in conformity with the requirements of the Ghana College of Physicians and Surgeons.
2) Schedule for clinical rotations, educational and administrative activities (Table 1)
   a) Geriatric Outpatient Clinic – ambulatory primary care continuity clinic, and consult for primary care providers. Fellows assess cognitive and functional status, manage geriatric syndromes, and formulate appropriate care plans. They will manage post-acute and gain experience in working in an interdisciplinary team.
   b) General Outpatient Clinic – fellows are expected to maintain one half-day a week for a general family practice clinic at their primary care facilities.

Table 1. Schedule for training programme in geriatric medicine fellowship.

*Rotation**	*Activity*	*Time*
Year 1 Longitudinal	Geriatric Outpatient Clinic – (continuity & consult) General Outpatient Clinic – (family practice) Geriatric Inpatient Acute Care Geriatric On-Call Consult Community-Based Care Office Procedures Administrative Activities	Weekly
Year 1 Block	Sub-Specialty Clinics: • Neurology – Cognitive & Movement Disorders I • Geropsychiatry • Geriatric Rheumatology • Physical Medicine & Rehabilitation • Palliative & End-of-life Care I • Neurology – Cognitive & Movement Disorders II Faculty Development Workshop Conference, Update Course etc. Annual Leave (vacation)	 Weekly x 8 Weekly x 8 Weekly x 8 Weekly x 8 Weekly x 6 Weekly x 6 1 Week 1 week 6 weeks
Year 2 Longitudinal	Geriatric Outpatient Clinic – (continuity & consult) General Outpatient Clinic – (family practice) Geriatric Inpatient Acute Care Geriatric On-Call Consult Community-Based Care Office Procedures Administrative Activities	Weekly
Year 2 Block	Sub-specialty clinics: • Geriatric Nephrology • Geriatric Endocrinology • Palliative & End-of-life Care II • Sub-Specialty Elective Private Practice Tutelage Conferences, Update Course etc. Annual Leave (vacation) / Elective	 Weekly x 8 Weekly x 8 Weekly x 6 Weekly x 6 Weekly x 12 2 weeks 6 / 10 weeks

**Longitudinal rotations are concurrent and block rotations are consecutive.*

c) Geriatric Inpatient Acute Care – emergency and inpatient acute care for frail elderly persons admitted to general wards in the training centre.

d) Geriatric On-call Consult – fellows provide supervised consultative services to primary care providers at the training centre on nights and weekends as determined by an on-call schedule. Consult shall primarily be by telephone but on weekends the fellow on call is expected to do one-half day of inpatient rounds at the training centre.

e) Community-Based Care – focuses mainly on the PACE concept, home-based care, and long term care in skilled nursing homes if available.

    i. PACE – a community-based model of care for frail elderly persons that provides comprehensive care along with functional and social support in an interdisciplinary, proactive, and cost-effective manner. Overall objective of the concept is to support patient preferences to age in familiar settings (e.g. home) for as long as possible. The fellowship programme will accredit a community-based facility for fellows to provide care as a pilot project aimed at developing a modified PACE model.

    ii. Home-Based Care – fellows learn to provide medical care and to perform geriatric assessments in the home setting to a wide variety of home-bound and multi-morbid elderly persons. Patients selected will be those who live within the catchment area of the training centre.

    iii. Long Term Care – fellows learn to manage patients (residents) in an institutional setting (i.e. skilled nursing home) if available.

f) Office procedures – minor surgical procedures e.g. joint aspiration and injections, simple excision, foreign body removal, foot care.

g) Sub-specialty rotations – half-day weekly clinics in geriatric aspects of Neurology, Nephrology, Endocrinology, Psychiatry, Rheumatology, Palliative & End-of-life care, and Physical Medicine & Rehabilitation (physiatry).

h) Private practice tutelage – fellows are supervised to provide geriatric outpatient care in a private practice setting as well as learning the set-up and administration of a private practice.

i) Electives – attachment at University of Michigan Geriatric Fellowship Program or a reputable geriatric centre abroad to gain exposure to best practices in settings outside Ghana.

j) Faculty development workshop – to equip fellows with skills in teaching, assessment, curriculum development, administration, and academic leadership.
k) Administrative activities – fellows are expected to participate in committee work, as well as general and educational administrative duties of the training centre, faculty or College.
l) Conferences, update course etc. – fellows will be expected to attend and make presentations at College and faculty conferences and update course.

5.3. Scholarly activities (one-half day a week)

1) Required final dissertation – each fellow works on a dissertation based on original research in a relevant area in geriatrics and gerontology. The work could be part of an ongoing research in the training centre. Supervisors shall be drawn from both local faculty and UM collaborators. The dissertation should conform to standards set by the Ghana College of Physicians and Surgeons.
2) Quality improvement / patient safety projects – e.g. development of teaching and learning resources, patient education materials, posters on clinical care. This should be done preferably in Year 1.

5.4. Instructional Strategies

The following teaching and learning methods will be employed as means to achieve the intended learning outcomes:

1) Didactics – one half-day a week. This will generally comprise lectures, case presentations, and student-led tutorials.
2) Research conferences (journal club) – one half-day a week. Fellows will present relevant articles from reputable journals and important documents. Reports shall be given on progress with scholarly activities for discussion.
3) Clinical precepting – outpatient, inpatient rounds with bedside teaching.
4) Tele-conference and on-line educational materials from UM collaborators and other sources.
5) Seminars and workshops.
6) Self-directed learning and assigned readings.
7) Observed teaching and facilitation by fellows with feedback from faculty.

5.5. Typical Timelines for a Fellow

1) Rotations (Tables 2 and 3)
2) Weekly sessions (Table 4)

Table 2. Year 1 Rotations

<table>
<tr><th>Time / weeks</th><th>6 wks</th><th>8 wks</th><th>8 wks</th><th>8 wks</th><th>8 wks</th><th>6 wks</th><th>1 wk</th><th>1 wk</th><th>6 wks</th></tr>
<tr><td>Block Rotations (weekly)</td><td>Neuro-I</td><td>Gero-psych</td><td>Rheuma</td><td>PMR</td><td>Palliative-I</td><td>Neuro-II</td><td rowspan="2">Fac Dev Wkshp</td><td rowspan="2">College confce, Updates etc.</td><td rowspan="2">Annual Leave</td></tr>
<tr><td>Longitudinal Activities</td><td colspan="6">Clinics; Inpatient care; Community-based care; Educational, Administrative and Research</td></tr>
</table>

Table 3. Year 2 Rotations

<table>
<tr><th>Time / weeks</th><th>8 wks</th><th>8 wks</th><th>6 wks</th><th>6 wks</th><th>12 wks</th><th>2 wks</th><th>10 wks</th></tr>
<tr><td>Block Rotations</td><td>Nephro</td><td>Endocr</td><td>Palliative-II</td><td>Sub-specialty elective</td><td>Private practice</td><td rowspan="2">College confce, Updates etc.</td><td rowspan="2">Annual Leave / Attachment abroad</td></tr>
<tr><td>Longitudinal Activities</td><td colspan="5">Clinics; Inpatient care; Community-based care; Educational, Administrative and Research</td></tr>
</table>

Table 4. Typical weekly sessions for a fellow.

Activity	*Frequency/ Week*	*Duration (Hrs)*
Geriatric Outpatient Clinic	1 session	6
Family Practice Outpatient Clinic	1 session	6
Geriatric Inpatient Acute Care	1 session	6
Community-Based Care	1 session	4
Sub-specialty clinic	1 session	6
Office procedures	1 session	4
Geriatric On-call Consult (weekend)	1 session	24
Didactics, Research conference	2 sessions	8
Scholarly activity	1 session	6
Administrative activity	1 session	4
Total	11 sessions	74 (maximum)

5.6. Assessment Plan

1) Formative Assessment

   It shall be based on a fellow's **portfolio** and shall contribute to the final fellowship examination score. A fellow should have a portfolio comprising:

   a) Catalogue of instructive cases, procedures, academic activities etc. – this entails entries primarily from longitudinal rotations. It shall be reviewed by the programme director or designated faculty half yearly.
   b) Workplace-based assessment (feedback) forms duly filled and signed by supervisors of block rotations. This should be reviewed by designated faculty at the end of every block rotation and preferably before commencement of the next.
   c) Copies of presentations, teaching & learning resources, quality improvement project, publications (if any).
   d) Copies of progress report from evaluation of fellow by geriatric faculty – twice a year.
   e) Copy of programme evaluation by fellow by end of Year 2.

2) Summative Assessment

   a) Eligibility for final examination – successful completion of training as evidenced by the fellow's portfolio, a dissertation report submitted to the faculty at least three months prior to the date of final examination, and a fulfillment of all other College and faculty eligibility requirements.
   b) The examination will consist of a two hour viva voce covering:
      i. Core areas in Family Medicine, Geriatric Medicine and fellow's training portfolio.
      ii. Defense of dissertation on original research.

3) Grading

   Pass mark for all sections of both formative and summative assessments is 50%. Weighting of the various sections shall be determined by the faculty board with the approval of the College Academic Board.

5.7. Training Sites

1) The Family Medicine Teaching Centre (FMTC) – This will be the main training site for the programme. It should be part of a teaching or regional hospital with the full range of resources typically found in an acute care hospital, including intensive care units, an

emergency medicine service, operating rooms, diagnostic laboratory and imaging services, and pathology services.

2) Sub-specialty clinics within the Teaching Hospital.
3) Community-based facilities – i.e. home-based care, adult day care, and skilled nursing facilities owned either by private individuals or non-governmental organizations.
4) Private practice facility with significant proportion of clientele being older adults.

5.8. Personnel

1) Initial faculty will be constituted by the Principal Investigator, the members of the project team in Ghana with the support of designated collaborators from University of Michigan.
2) Specialists in neurology, nephrology, psychiatry, rheumatology, palliative care, and physical medicine & rehabilitation shall be engaged for the respective sub-specialty rotations.
3) Other personnel include nurses, social workers, clinical pharmacists, physical, occupational and speech therapists, dieticians, counselors, research assistant and dedicated administrative staff.

6. IMPLEMENTATION OF CURRICULUM
    1) Completion of curriculum development by end of January 2016.
    2) Submission of curriculum to Academic Board of Ghana College of Physicians and Surgeons for approval by end of January 2016.
    3) Final document approved by all stakeholders by end of February 2016.
    4) Inspection and approval of community training sites.
    5) Commencement of fellowship training by March 2016.

7. EDUCATIONAL RESOURCES
    1) Hazzard's Geriatric Medicine and Gerontology. 6th Edition by Jeff B. Halter et. al. McGraw Hill, New York, 2009.
    2) Geriatrics Review Syllabus: A core curriculum in Geriatric Medicine. 7th Edition by Duso SC and Sullivan GM (eds). New York; American Geriatric Society, 2013.
    3) Geriatrics at Your Fingertips: 2015. 17th Edition by David B. Reuben et al. American Geriatric Society, New York, 2015.

4) Practical Guide to the Care of the Geriatric Patient. 3rd Edition by Tom J. Wachtel & Marsha D. Fretwell. Mosby Elsevier, Philadelphia, 2007.
5) Textbook of Family Medicine. 8th Edition by Robert Rakel and David Rakel. Elsevier Saunders, Philadelphia, 2011.
6) Postgraduate Medical Journal of GCPS.
7) Ghana Medical Journal.
8) African Journal of Primary Health Care and Family Medicine.
9) Journal of the American Geriatric Society (JAGS).
10) Journals of Gerontology.
11) New England Journal of Medicine.
12) http://www.globalfamilydoctor.org
13) http://www.pogoe.org/.
14) Family medicine digital resource library; http://fmdrl.org/index.cfm.
15) http://www.uptodate.com

8. MONITORING AND EVALUATION

8.1. Strategies/methods

There will be on-going collection of data on fellows' knowledge and satisfaction; the use of faculty and community preceptors and their levels of satisfaction; and external review by curriculum/content experts from other departments or schools relevant to geriatric medicine and gerontology.

8.2. Revision

The curriculum shall be reviewed in accordance with findings from the monitoring and evaluation process and also as indicated by new concepts in geriatric medicine education globally.

9. REFERENCES

1) United Nations Population Division, DESA. *The World Population Prospects: The 2010 Revision.* New York: United Nations. 2011.
2) Ghana National Population and Housing Census. Ghana Statistical Service, Ministry of Finance and Economic Planning, Accra, Ghana. 2010.

3) Ghana Statistical Service (GSS), Ghana Health Service (GHS), and ICF Macro. Ghana Demographic and Health Survey 2008. Accra, Ghana: GSS, GHS, and ICF Macro. 2009.
4) World Health Statistics. Geneva: World Health Organization. 2014. www.who.int/gho/publications/world_health_statistics/en/. Accessed 31/10/2014.
5) Biritwum R, Mensah G, Yawson A, Minicuci N. Study on global AGEing and adult health (SAGE) Wave 1: The Ghana National Report. World Health Organization. 2013.

10. BIBLIOGRAPHY

1) Government of Ghana. National ageing policy: 'Ageing with security'. Ministry of Employment and Social Welfare, July 2010.
2) American Academy of Family Physicians. Recommended Curriculum Guidelines for Family Medicine Residents: Care of Older Adults. AAFP Reprint No. 264, 2011 Revised 6/2011 by Lynchburg Family Medicine Residency & Geriatric Fellowship.
3) Accreditation Council for Graduate Medical Education. ACGME Program Requirements for Graduate Medical Education in Geriatric Medicine document. July 1, 2014.
4) Specialty Training Curriculum for Geriatric Medicine Curriculum. (Amendments August 2013). JRCPTB – London.
5) Kern DE, Thomas PA, Hughes PT. Curriculum Development for Medical Education – A Six-Step Approach. Baltimore: The Johns Hopkins Univ. Press, 2nd Edition, 2009.
6) Sheets KJ. Curriculum development notes. Faculty Development Institute workshops, November 2015 – March 2016. Department of Family Medicine, University of Michigan.
7) Vitale, CA. University of Michigan Geriatric Fellowship Program. 2016-2017 Program Overview.
8) http://www.uptodate.com. Wolters Kluwer Health, USA.

ADDENDUM

I. MINIMUM GERIATRIC COMPETENCIES FOR RESIDENTS IN FAMILY MEDICINE

Family medicine residents in postgraduate years 1 and 2 (pgy-1, 2) manage older adults through the general outpatient clinics and inpatient rounds during rotations in family medicine and internal medicine. In pgy-3 they will rotate through the Geriatric Outpatient Clinic and Inpatient Care for eight weeks as part of the Chronic Care rotation. In addition, there is the option of electives in special interest areas including geriatrics for six weeks to gain further insight and experience into this important and emerging fields. The resident is expected to gain the following competencies:

1. Describe and identify normal changes of aging.
2. Perform a patient-centered medical interview and physical examination, gathering data from multiple sources as necessary for assessment of functional status and focused care needs.
3. Administer and assess common clinical measures of physical, cognitive and psychosocial functioning, including: gait and balance, activities of daily living, instrumental activities of daily living, cognitive assessment, and assessment of affect.
4. Assess psychosocial challenges seen in aging – changes of location and type of residence; elder abuse and neglect; depression and suicidality; home safety; changes of sexuality; substance abuse.
5. Develop, prioritize, and justify differential diagnoses in the frail elderly patient.
6. Initiate diagnostic evaluation, and construct an appropriate geriatric care plan for common geriatric clinical syndromes.
7. Adapt medication prescribing for elderly patients with common medical disorders and seek to minimize polypharmacy and medical side effects.
8. Counsel patients regarding geriatric health maintenance and screening – osteoporosis, breast cancer, colon cancer, prostate cancer, immunizations, hearing, vision, diabetes, kidney disease, hypothyroidism, social concerns (e.g. abuse, housing, supports).
9. Establish rapport with elderly patients and their families or surrogates, using patient-centered communication to enhance the physician-patient relationship.

10. Effectively and considerately communicate within an interdisciplinary team to promote care coordination.
11. Generate appropriately focused documentation that clearly articulates principles of geriatric assessment, including relevant psychosocial issues and goal setting.
12. Understand and compassionately respond to issues of culture, age, sex, sexual orientation, and disability for all elderly patients and their families.
13. Recognize the importance of psychological and spiritual support for elderly patients and their families.
14. Demonstrate improvement in clinical management of elderly patients by continually improving knowledge and skills during the rotation.
15. Function within a multidisciplinary geriatric care team, including nurses, social workers, physical therapists and other providers, to facilitate coordinated care.

(For detailed topics for resident teaching, kindly refer to the geriatric section in the Family Medicine Membership curriculum).

MINIMUM GERIATRIC COMPETENCIES FOR MEDICAL STUDENTS

(Adapted from University of Michigan Geriatric Program with permission)

Medical students are introduced to geriatric medicine through family medicine lectures and clerkship at Level 400 and 600 respectively.

Aim: To provide the foundation for competent, compassionate care of older patients. This includes attitudes, knowledge, and skills needed to care for older people. Students should be able to:

1. Obtain a focused history that accurately elicits the patient's functional status i.e. activities of daily living (ADLs) and instrumental activities of daily living (IADLs); and explain the treatment implications of the outcome.
2. Obtain an accurate history about falls and symptoms of memory impairment and explain the treatment implications of the outcome.
3. Perform a gait assessment (e.g. Timed Up and Go [TUG] test) and explain the treatment implications of the outcome.
4. Assess cognition using a standardized tool e.g. Mini-Cog, and explain the treatment implications of the outcome.
5. Perform a depression screen (2-item Depression Screen) and explain the treatment implications of the outcome.
6. Identify a patient who is unsafe to live alone due to physical or cognitive impairment.

II. EVALUATION FORM FOR MEDICAL STUDENT CLERKING

Evaluation of Level 600 Geriatric Patient Write up History, Physical Examination, and Assessment

Student Name: Date:

Evaluator's Name:

	Goal Achieved	Needs Improve-ment
Medications / Allergies		
List doses and dosing schedule for each medication.		
Includes mention of over-the-counter drugs, vitamins, supplements and alternative therapies.		
Provides assessment of adherence to therapies.		
Review of Systems		
Includes (as positive or negative) mention of screening for common geriatric conditions e.g. incontinence, cognitive impairment, decreased appetite, weight loss, depression, sexual dysfunction, impaired mobility or falls.		
Social History		
Details home living situation.		
Describes social network.		
Describes level of usual physical and recreational activities.		
Sexual activity, screening for dysfunction or dissatisfaction.		
Safety: screen for fall risk, risk for domestic violence, elder abuse.		
Identifies existence of advance directive and/or durable power of attorney for health care.		
Assessment of Functional Status		
Describes ability to perform activities of daily living.		
Describes ability to perform instrumental activities of daily living.		
Addresses driving status and any safety concerns.		
Physical Examination		
Provides objective screening exam for cognitive function (e.g. MMSE or Mini-COG).		
Includes screening for depression (e.g. GDS, PHQ).		
Includes assessment of gait and balance (e.g. TUG).		
Assessment, Differential Diagnosis and Plan		
Provides a thorough discussion of the patient's primary geriatric condition or concern including its differential diagnosis, usual presentation, natural history, complications, prognosis and treatment.		
Demonstrates evidence of additional reading about this geriatric condition (e.g. includes references to articles).		
Plan includes disposition (e.g. follow-up visits, monitoring).		
Where indicated, includes plan to update healthcare maintenance or establish advance directives.		

Other comments or recommendations:

III. GERIATRIC CLINICAL CHECKLIST FOR MEDICAL STUDENTS

Level 600 Geriatric Clinic Checklist	
Patient's initials, age, gender, primary diagnosis:	
1. ACTIVITIES OF DAILY LIVING (ADLs)	
Requires assistance for…	
Eating	
Transferring from bed to chair	
Going to the toilet	
Bathing	
Dressing	
Grooming	
2. INSTRUMENTAL ACTIVITIES OF DAILY LIVING (IADLs)	
Requires assistance for….	
Administering own medications	
Using the telephone	
Preparing meals	
Grocery shopping	
Driving/Transport	
Handling finances	
3. GAIT ASSESSMENT	
Asked about falls in the past year	
Performed Screening Test: Timed Up and Go (TUG)	
4. COGNITIVE ASSESSMENT	
Asked about problems with memory	
Performed Screening Test: Mini-Cog; MMSE (optional)	
5. ASSESSMENT OF AFFECT	
Asked 2 question depression screen:	
"During the past month, have you often been bothered by feeling down, depressed, or hopeless?"	
"During the past month, have you often been bothered by little interest or pleasure in doing things?"	
Performed Geriatric Depression Screen Test (Optional)	