The Vanderbilt-Reynolds Geriatrics Education Center:

Meeting the Challenges of Geriatrics Medical Education
Donald W. Reynolds Foundation (Las Vegas, NV) -- Aging and Quality of Life Program

- Goal: Improving the quality of life for America’s elderly by preparing physicians to provide better care for them when they become ill

- 30 Schools funded for 4 years with ~$2M/school:
  - 10 in 2001
  - 10 in 2003
  - 10 in 2006 (Vanderbilt’s cohort)
  - 10 more programs to be funded in 2009 (announced this month)

- 2004—Created Donald W. Reynolds Consortium to Strengthen Faculty Expertise in Geriatrics in U.S. Academic Health Centers.
  - Four grants = ~$3M/ea
  - Train academic health center faculty in geriatrics: Duke, Johns Hopkins, Mount Sinai (NY), and UCLA
Overview: VR-GEC GOALS

Goal 1: Comprehensive and Continuous Integration of Geriatrics in the Medical School Curriculum

Goal 2: Enhance Medical and Surgical Residency Training Programs in Geriatrics

Goal 3: Improve Education in Geriatrics for Faculty and Practicing Physicians

Goal 4: Coordinate Geriatrics Curriculum Elements with Regional Geriatrics Educational Resources

For all four goals, develop, implement, and improve biomedical informatics clinical education tools.
## VR-GEC Four-Year Timeline

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<th>Year 3 (2008-09)</th>
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<td>Basic Sciences integrated MS1-2</td>
<td>MS4 intersession, Capstone</td>
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<td>Evaluation</td>
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Geriatrics Curriculum Progress
1. Students paired with seniors in the community and LTC facilities.
   - Patients-as-Partners Program, with Patient, Profession and Society (PP&S) Course
   - AY2007-08: 103 MS I students; 16 NP students and 60 patients
   - AY2008-09: 208 MS I & II students; 31 NP students and 120 patients
   - Approx 50% of patients 65+ yoa

2. Implemented experiential learning and reflective learning exercises uploaded and assessed on the personal medical student Learning Portfolio (LP).
KM Notes

Patient Selection

Bara, Allen. Age: 65 Sex: M

Add New Patient    Patient's Existing Notes

Templates

Note categories:
- Medicine
- Patients-as-Partners (Fall VMS 1)
- Pediatrics
- Surgery

Patients-as-Partners (Fall VMS 1)
- Clinic Visit
- Home Visit
- Hospital Visit
- Notes for Oral Report
- Other Notes
- Telephone Call

Saved Drafts

You have 1 draft.

<table>
<thead>
<tr>
<th>Patient</th>
<th>Note Template</th>
<th>Save Date/Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bara, Allen</td>
<td>Clinic Note</td>
<td>2007-07-11 17:31:18 (Autosaved)</td>
</tr>
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</table>

Delete

View existing notes
Existing Reynolds Programs’ tools consulted to create home visit notes:

- Albert Einstein College of Med
- Univ of Missouri-Kansas City
- Univ. of Rochester
3. Implemented two plenary sessions within the Patient, Profession and Society Course.
   - Dementia
   - End-of Life/Palliative Care

4. Provided opportunities for standardized geriatric patient experiences.
   - Foundations Course: Teamwork Day & Home Visit Orientation Videos
   - PP&S Course: Dementia & End-of Life/Palliative Care SP exercises

5. Created preceptorships for students with master clinicians in medicine through the Patient, Profession and Society Course.
   - Clinical Preceptorships
   - Chronic Illness Clinic Visits, including assignments uploaded to LP
Physical Diagnosis Course

- Activity 1—Incorporate evaluation of the elderly into a half-day session of the Physical Diagnosis Course. Principles of geriatric assessment lecture incl. illustrative cases followed by small group interviews with older patients and interdisciplinary team participation. (109 Students)

- Activity 2—Teach and observe history-taking and physical examinations of standardized older patients and subsequently on the wards as part of the Physical Diagnosis Course. SP cases featured geriatric syndromes of polypharmacy, dementia and falls. (109 students)

Patient, Profession and Society Course

- Extended 2007-08 participation in patient home visit program
1. Geriatrics Intersession – Full Day

**Morning session:** Lecture and small group patient interviews on five geriatric syndromes (osteoporosis, polypharmacy, delirium, urinary incontinence, & falls).

**Afternoon session:** Complex communication situations based in the geriatric syndromes. Integrated standardized patient exercises into afternoon session of geriatrics intersession course.

2. Geriatric patient simulation using the Laerdal SimMan as part of the Critical Skills Course prior to the Surgery Clerkship. Session on “Breaking Bad News.”
VMS IV Geriatrics Curriculum Progress

1. Geriatrics content included in Capstone Course on colorectal cancer.
2. Simulation training on GI Mentor (simulated colonoscopy) in surgical subinternship.
3. Fourth-year elective in geriatrics.
4. Collaboration with Palliative Care service re: geriatrics content.
VR-GEC Program Overview

**Medicine Residency Geriatrics Curriculum Progress**

1. Home visit program for Medicine PGY1s, providing exposure to home health services and home safety/falls prevention content during geriatrics rotation.

2. Geriatrics inpatient, ambulatory, hospice, palliative care and nursing home rotations for PGY1s.

3. Didactic education programs including weekly lecture series, monthly journal club.
Specialty Residency Geriatrics Curriculum Progress

Collaborative, case-based presentations* to specialty residency programs:

- Neurology
- Psychiatry
- Emergency Medicine
- General Surgery
- Cardiology
- Urology
- Dental/Oral Surgery
- Anesthesiology
- Gynecology
- Ophthalmology
- Thoracic Surgery
- Neurosurgery
- Orthopedics

*Innovative use of Eskind Biomedical Library Clinical Informationist Service. Paired case presentation with relevant clinical literature search.
Continuing Medical Education

• Geriatrics and Gerontology Interest Group (GGIG)
  – Interdisciplinary educational sessions at VUMC in collaboration with the Meharry Consortium GEC
  – Power Point presentations posted on VR-GEC website for distance learners

• Annual Quality in Geriatric and Long-Term Care Medicine conference at VUMC

• Geriatrics journal club
Biomedical Informatics and the Vanderbilt-Reynolds Program
VR-GEC Informatics Tools

1. VR-GEC Website
2. Eskind Biomedical Library / Geriatrics Digital Library
3. Knowledge Map (KM) & Learning Portfolio (LP)
4. Consult Wiz
5. StarPanel / StarTracker
6. WizOrder CPOE geriatrics decision support
7. Geriatric Drug-Dosing WizOrder/CPOE
Welcome to the Vanderbilt-Reynolds Geriatrics Education Center Website!

Vanderbilt University Medical Center is committed to education, research and clinical care in geriatrics. It has a long history of multi-disciplinary care for older adults provided at multiple-campus clinical settings, a vital educational environment and rigorous research programs.

This web site offers geriatric medicine educational resources of interest to professionals of all disciplines in the field of geriatrics. These resources are available on our site through the Vanderbilt Eskind Biomedical Library and the Department of Biomedical Informatics. We are pleased to bring these resources to our users, and we hope you return often.

James Powers, MD
Director, Vanderbilt-Reynolds Geriatrics Education Center
VR-GEC Informatics Tools

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Eskind Biomedical Library

- Online/electronic original literature sources
- Synthesized Clinical Information Packets
  http://www.mc.vanderbilt.edu/vumcdiglib/geriatrics/info/index.html

Geriatrics-Related Health Topics:
  Alzheimer’s disease; delirium; falls and older adults; hearing loss; high blood pressure; osteoporosis; Parkinson’s Disease; peripheral arterial disease; pressure sores (bedsores); stroke; urinary incontinence.

Geriatrics-pertinent Preventive Health Topics:
  Blood pressure screening; nutrition management in seniors; osteoporosis screening
In patients over age 65, what strategies have been shown to reduce the risk of accidental falls?

Date created: 2007-11-20  
Last Updated: 2007-11-20

Literature Summary

The literature on intervention strategies to reduce the risk of accidental falls in the elderly is vast and consists of myriad clinical trials, observational studies, and systematic reviews of the literature. Wide heterogeneity exists among intervention type, population, and settings examined. Study design and quality are also variable. Due to the immense amount of research available on prevention strategies, this summary focuses predominantly on clinical practice guidelines and systematic reviews from 2000 to present for their examination and synthesis of the current relevant literature; additional data is available upon request for any of the interventions described.

Overall, most studies assessed the effectiveness and outcome of a single intervention or a combination of interventions such as group exercise, muscle strength and balance training, environmental modifications, withdrawal/adjustment of psychotropic medication, nutritional supplementation, correction of visual...
Eskind Biomedical Library

My Health at Vanderbilt -- VUMC Patient Web Portal

- Provides vetted, consumer-level information
- Patients logging in to the portal can view information directly relevant to their conditions.
- As of 5/31/08, 9,549 registered My Health at Vanderbilt users
- 19% of 50,498 total users were 60 years of age or older
Preventing Falls

Although falls are common, many falls can be prevented by taking simple steps. This section explores ways to cut your risk of falling, including making changes in your home, exercising to maintain balance, wearing the right footwear and maintaining good bone health.

Overview: Prevention of Falls
- Fall Prevention: 6 Ways to Reduce Your Falling Risk [MayoClinic.com]
- What Are Ways to Prevent Falls and Related Fractures? [National Institute of Arthritis and Musculoskeletal and Skin Diseases]
- What You Can Do to Prevent Falls [National Center for Injury Prevention and Control]

Home Safety
- Check for Safety: A Home Fall Prevention Checklist for Older Adults [National Center for Injury Prevention and Control]
- Preventing Falls in the Home [McKee and Co., Inc.]

Exercises for Balance
- Slide show: Balance Exercises Improve Stability, Help Prevent Falls [MayoClinic.com]
- What You Need to Know about Balance and Falls [American Physical Therapy Association]

Bone Health
- How Can I Keep My Bones Healthy? [National Institute of Arthritis and Musculoskeletal and Skin Diseases]

Footwear
- Footwear and Falls [American Academy of Orthopaedic Surgeons]

Preventing Falls in the Nursing Home
- Falls in Nursing Homes [National Center for Injury Prevention and Control]
VR-GEC Informatics Tools

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Goal 1: Provide wide accessibility to learners (students, MDs) for new geriatrics content
  • Concept-based curricular access for students, MDs
  • Concept- and topic- based curricular overviews for faculty

Goal 2: Summarize (for mentors and students) each student’s entire geriatrics patient encounter history by concept/topic -- Tracking of deficits versus learning objectives enables prescriptive “remedial” simulation and education
Developing shared geriatrics vocabularies

- Automatically extracted “important” concepts from AGS’ Geriatrics Review Syllabus
- Reviewed, filtered, and categorized concepts with committee of geriatricians and terminology experts
- Developed 10 core geriatrics concepts and common “cross-over” concepts; each contains 50-200 concepts
  - Incontinence
  - Falls
  - Environment of Care
  - Geriatric Assessment
  - Osteoporosis
  - Safety
  - Biology of Aging
  - Polypharmacy
  - Dementia
  - Delirium
Find “dementia” in all clinical notes written by students and residents
Refine the search by the clinical note section: in this case, assessment and plan, chief complaint, or history of present illness.

There are 1480 notes found in the system matching the query. There are 427 patients represented by these notes.
Count of Geriatric Containing Documents By Academic Year

Academic Year

- 2002
- 2003
- 2004
- 2005
- 2006
- 2007

VMS IV
VMS III
VMS II
VMS I
Launching a new POGOe

- Entered into agreement to develop a new POGOe platform based on KnowledgeMap and open-source software
- New Features:
  - Fully searchable by any word or concept within any text or PowerPoint document
  - An integrated Wiki (previously stand-alone)
  - Archives of best products
- New site launched 6/19/2008
Educational Resources on Aging
Mon, 05/16/2000 - 02:55 — acosta

The Educational Resources on Aging (ERA) from the Reynolds Team of the Warren Alport Medical School at Brown University is a collection of educational learning objects which provides POGOe users with an array of topics in clinical geriatrics and skills development. Due to its depth of geriatrics and aging topics, this collection is an invaluable addition to the POGOe digital library.

Add new comment 54 reads

Recent Products

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<th>Object_created</th>
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Selected Educational Materials for the DWRF 4th Cohort Applicants - A list of teaching products developed by previous DWRF cohorts.
New KnowledgeMap POGOe search results for **donepezil**

Definitions:

**donepezil**: A drug used in the treatment of Alzheimer’s disease. It belongs to the family of drugs called cholinesterase inhibitors. It is being studied as a treatment for side effects caused by radiation therapy to the brain.

Google-like results display, grouped by product
Program Evaluation
Evaluation: What do we want to know?

- Are we implementing the programming we intended to?
- Are targets learning content taught? (knowledge & attitudes)
- Can students apply what they’ve learned? (skills)
- Does the learning persist over time?
Minimum Geriatric Competencies for Medical Students

- Published in October 2007
- 26 domains for mastery by graduation
- Development lead by AAMC/John A. Hartford Foundation
- Panel of geriatrics experts helped rank areas
Graduate Medical Education Outcomes

**AGCME Competencies:** Patient Care; Medical Knowledge and Skills; Interpersonal and Communication Skills; Professionalism; System-Based Practice; & Practice-Based Learning and Improvement.

**NIH Institute of Medicine Aims:** Care that is: Safe, Timely, Effective, Efficient, Equitable & Patient-Centered
Multiple Methods of Evaluation in Combination Provide Greater Power

Knowledge Map/Portfolio Notes Analysis

Simulation (human and technical)

Secret Shopper “Patients”
Outcomes of Evaluation

• Provides accountability to funders
• Find and fill gaps in individual learner knowledge
• Measure program effectiveness (we are doing what we set out to accomplish)
• Target programming for improvement (Quality Improvement)