

## Consulting Pharmacy Practice

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## An Introduction to Consulting Pharmacy Practice

Gerontology Pharmacy Practice  
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## Learning Objectives

- To understand the role of the consultant pharmacist in long-term care and community geriatric practice
- Review the responsibilities of the consultant pharmacist to their patients and facilities
- To learn the concepts of drug regimen review utilized by consultant pharmacists
- Review pertinent resources for information and enhancement of clinical practice for consulting pharmacy

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## Who is a consultant pharmacist?

- A consultant pharmacist is a pharmacist who is paid to provide expert advise on the use of medications within institutions or on the provision of pharmacy services in an institution.
- Consultant pharmacists practice in a variety of settings but originated in the nursing home environment.
- (American Society of Consultant Pharmacists - [www.ascp.com/public/student/consider.shtml](http://www.ascp.com/public/student/consider.shtml))

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## Consultant Pharmacy Practice

- Concept originated less than 32 years ago (mandated by OBRA regs in 1987)
- Most consultant pharmacists are employees of pharmacy provider organizations
- Independent consultant pharmacists are prevalent in certain states (NJ)

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## Where to we practice?

- LTC- long-term care facility (SNF)
- AL- assisted living facility
- Sub-acute- sub-acute hospital based care (TCU)
- Psychiatric Facilities/ Correctional Facilities
- Surgical Centers
- Veterans home
- MRDD/ ICFMR (Developmental Disabilities)
- Adult Day Care
- Hospice Care
- Dialysis Centers
- Pediatric Care Facilities
- Community Based Practice-Geriatric Care Management

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## Rx Use and Seniors

According to the American Society of Consultant Pharmacists:

- Rx use increases with age
  - 65-69 year olds - 13.6 Rxs/year
  - 80-84 year olds - 18.2 Rxs/year



Source: AARP Issue Brief, 2003

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## Your Credentials

- Certain credentials are recommended to practice in long-term care pharmacy
- CCP (In New Jersey/ Florida)
- CGP (Certification in Geriatric Pharmacy)
- FASCP (Fellow of the American Society of Consultant Pharmacists)

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## Primary Patient Care Services

- Drug Regimen Review
- REGULATIONS!!!!
  - a) Drug interactions
  - b) Drug indications for use
  - c) Lab review/ recommendations/ orders
  - d) Geriatric Dosages
  - e) Inappropriate Medications
  - f) Pharmacokinetic monitoring/dosing
  - g) Therapeutic Drug Monitoring Services

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## Patient Primary Care Services

- Nutrition Assessment/ Support Services
- Durable Medical Equipment
- Drug Research Programs
- Quality Assurance Programs
- Medication pass review
- Drug Information
- Medication Delivery Systems
- Patient Counseling

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## Consultant Pharmacy Practice

- Typically, one consultant pharmacist per nursing facility
- Essential member of the interdisciplinary healthcare team
- Voting member of the Pharmacy and Therapeutics committee

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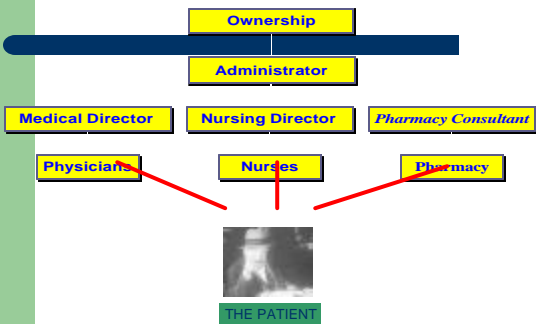
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## FACILITY ORGANIZATIONAL CHART



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## Specialty Services

- Pain management rounds
- Psychoactive medication rounds/meetings
- Falls committee
- Educators/ Lecturers
- Assisted Living Consultants
- Surgical Center compliance specialists
- EPIC

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## What you need to know.....

- "Start Low, Go Slow...But GO"- the foundation of geriatric dosing
- Regulations
- Clinical Pharmacy/ Drug Information
- Recommended Lab values/frequencies
- Article: (see handout)  
" *Explicit Criteria for Determining Potentially Inappropriate Medication Use by the Elderly*"  
by: Dr. Mark Beers  
Archives of Internal Medicine 1997 vol. (157)

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## What you need to know....

- Top 10 drug interactions in the elderly  
(Based upon the M3 committee findings-joint sponsorship between AMDA and ASCP)
- Warfarin — NSAIDs\*
- Warfarin — Sulfa drugs
- Warfarin — Macrolides
- Warfarin — Quinolones\*\*
- Warfarin — Phenytoin
- ACE inhibitors — Potassium supplements
- ACE inhibitors — Spironolactone
- Digoxin — Amiodarone
- Digoxin — Verapamil
- Theophylline — Quinolones\*\*

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## Resources for your practice

- American Society of Consultant Pharmacists  
[www.ascp.com](http://www.ascp.com)
- American Medical Directors Association  
[www.amda.com](http://www.amda.com)
- *Guide to Interpretive and Regulatory Guidelines - published by ASCP, HCFA*
- Article by Dr. Mark Beers- "Explicit Criteria for Determining Potentially Inappropriate Medication Use by the Elderly"- Archives of Internal Medicine 1997

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## Beer's List Clinical Pearls

- Propoxyphene (Darvon®, Darvocet®)- few analgesic advantages over Acetaminophen with the side effects of narcotics
- Amitriptyline (Elavil®)- strong anti-cholinergic and sedating properties- not recommended first line for depression
- Trimethobenzamide (Tigan®)- least effective anti-emetic, increased EPS side effects in the elderly

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## Beer's List Clinical Pearls

- Dipyridamole (Persantine®) causes frequent orthostatic hypotension  
(Excludes Aggenox®- Dipyridamole ER/ASA combination tablet)
- Anti-histamines used for insomnia- avoid for a period of greater than 7 days due to the increased incidence of anti-cholinergic side effects (Examples: Benadryl®)

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### Patient Case- a real one!!!!

- WM is an 89 year old white female who suffers from advanced dementia and Parkinson's disease who was admitted to C. nursing home following a fall in her home which resulted in a fractured hip.

She is a new patient to your service and you are in the facility to do monthly drug review

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### WM continued....

- Past medical history/Current Medical History:  
HTN  
Coronary Artery Disease  
Dementia with Agitation  
Depression  
Osteoporosis  
GERD  
CHF  
A. fib  
Hyperlipidemia  
Hypercholesterolemia  
Fractured left hip

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### Current medication Listing

- Propoxyphene/APAP- 1 tablet every 4 to 6 hours as needed for pain
- Acetaminophen 325mg tablet 1 tablet every 4 to 6 hours as needed for mild pain or temp >101
- Multivitamin with minerals - 1 tablet daily
- Doneprazil (Aricept) 10mg tablet -1 tablet PO daily
- Olanzapine (Zyprexa) 5mg tablet 1 tablet PO daily at 5pm
- Lisinopril (Prinivil) 20mg- 1 tablet PO daily
- Digoxin 0.25mcg's - 1 tablet PO daily
- Amiodarone 200mg tablet 1 tablet PO BID
- Warfarin 2mg tablet 1 tablet PO daily
- Fluoxetine (Prozac) 20mg tablet- 1 tablet PO HS
- Zolpidem (Ambien) 10mg tablet 1 tablet PO HS
- Lansoprazole (Prevacid) 30mg capsule- 1 capsule PO daily
- Metoprolol XL (Toprol XL) 100mg tablet 1 tablet PO daily
- Carvedilol (Coreg) 12.5mg tablet 1 tablet PO daily
- Rofecoxib (Vioxx) 12.5mg tablet 1 tablet PO daily
- Simvastatin (Zocor) 20mg tablet 1 tablet PO daily
- Carbidopa/ Levodopa ( Sinemet) 25/100mg tablet 1 tablet PO BID

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## Some questions to ask yourself..

- Is CHF regimen appropriate?
- What is the Olanzapine (Zyprexa) being used for?
- Is pain control sufficient?
- Do all of the medications correspond to an appropriate diagnosis?
- Are all dosages appropriate for the geriatric patient?
- Are there signs and symptoms of adverse effects present in the patient?

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## Vital Signs/ Lab values

- HR 65, RR 20, BP 110/70, MMSE score 10
- What does the MMSE score of 10 indicate to you as the consultant pharmacist?

Labs: Na 131mEq/L, K 3.7mEq/L, Cl 107mEq/L,  
BUN 15mg/dL, sCr 1.1, Mg 2.1mg/dL, Ca 9.4mg/dL,  
Glucose 100mg/dL

WBC7.2, RBC 5.2, Hgb 13g/dl, Hct 42%,  
MCV 92, MCH 31pg

Physical Exam: unremarkable

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## Drug Regimen Review 101

- Indicate what nursing recommendations you would make....

Examples:

- 1) What medications should be given with food?
- 2) What medications should be given on an empty stomach?
- 3) What medications should not be crushed?
- 4) What type of side effects/ adverse event monitoring should be done?
- 5) Documentation Issues



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### If I was doing chart review....

- Nursing comments:
  - 1) Donepezil- best given HS
  - 2) Olanzapine- anticholinergic/ CNS side effects
  - 3) Lansoprazole- 30 to 60 minutes AC
  - 4) Do not crush Metoprolol XL
  - 5) Monitoring for Digoxin toxicity
  - 6) Carvedilol with meals to decrease orthostatic hypotension
  - 7) Monitor for changes in BP/HR with Rofecoxib

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### If I was doing chart review.....

- Physician comments:
  - 1) Amiodarone/ Digoxin interaction- order Digoxin level
  - 2) Amiodarone/ Warfarin interaction- order PT/INR
  - 3) Zolpidem use 2<sup>nd</sup> to insomnia by Fluoxetine
  - 4) Inappropriate use of Propoxyphene in geriatrics
  - 5) Evaluate use of Olanzapine –recommend Quetiapine
  - 6) Monitor LFT's every 3 months with Simvastatin
  - 7) Patient has HTN and CHF- recommend change of Rofecoxib to another COX-2 agent

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### Summary

- Consultant Pharmacists are paid for their cognitive services
- You need to have a strong understanding of the principles of geriatric pharmacotherapy when doing drug regimen review
- Geriatrics goes beyond textbook knowledge! (know your studies!!- i.e our patient case)

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## Branching out your career path

- As a consultant pharmacist, you can do so many things:
- Formulary Management
- Disease State Management
- Education Coordinator
- DUE/MUE studies
- Research studies
- Lecturer
- Specialty practices
- Medical Education Opportunities



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## If you are interested.....

- E-mail me with your concerns/ questions
- Take a geriatric rotation
- Explore CCP certification
- Brush up on your lecturing/ presentation skills
- Check out [www.ascp.com](http://www.ascp.com)



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