

Care of the Geriatric Patient: Selected topics

Primary Care Days

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Disclosures

I have no financial relationships with any commercial interests

Informal Poll

- What is the Beers List?
- Urinary incontinence: when to refer to Urogynecology?
- Cancers screening in older adults: when to stop?
- Immunization update
- Driving: how to evaluate, what are the laws, what is the process?
- Community resources: how to keep older adults in their homes

- Management of chronic problems
 - constipation
 - insomnia
 - pain
 - depression versus dementia?

Medication Issues

Context

Adverse drug events (ADEs)

- 27% ADEs in primary care preventable
- 42% of ADEs in long-term care preventable

Total cost of Potentially Inappropriate Medications (PIMs)

\$7.2 Billion

2012 Updated Beer's Criteria

Potentially Inappropriate Medication Use in Older Adults

- Goal to improve the care of older adults by reducing exposure to PIMs
 - Educational tool
 - Quality measure
- Practicing clinicians
- Ambulatory and institutional settings
- Pts >65 yo
- The intentions of the criteria
 - improve the selection of prescription drugs by clinicians and patients
 - evaluate patterns of drug use within populations
 - educate clinicians and patients on proper drug usage
 - evaluate health-outcome quality of care, cost, and utilization data.

Panel Members

- Co-chairs
 - Donna Fick, PhD, RN, FAAN
 - Todd Semla, MS, PharmD
- Panelists (voting)
 - Judith Beizer, PharmD
 - Nicole Brandt, PharmD
 - **Catherine DuBeau, MD**
 - Nina Flanagan, CRNP,CS-BC
 - Joseph Hanlon, PharmD, MS
 - Peter Hollmann, MD
 - Sunny Linnebur, PharmD
 - Stinderpal Sandhu, MD
 - Michael Steinman, MD
- Nonvoting Panelists
 - Robert Dombrowski, PharmD (CMS)
 - David Nau, PhD (PQA)
 - Bob Rehm (NCQA)
- AGS Staff
 - Christine Campenelli
 - Elvy Ickowicz, MPH
- Others
 - Sue Radcliff (research)
 - Susan Aiello, DVM (editing)

2012 Updated Beer's Criteria

Potentially Inappropriate Medication Use in Older Adults

- 34 meds/classes potentially inappropriate
 - Higher risk of side effects
 - May not work as well
 - May be replaced by safer or more effective meds or non medication remedies
- 14 meds which may worsen a condition or syndrome
- 14 meds which should be used with caution

2012 Updated Beer's Criteria

Potentially Inappropriate Medication Use in Older Adults

- Medication /Therapeutic Class
- Rational
- Recommendation
- Quality of evidence
- Strength of recommendation

Table 2. Drugs to Avoid

| Organ System or TC or Drug | Rationale | Recommend. | Quality of Evidence | Strength of Recommend. |
|--|---|---|---------------------|------------------------|
| Non Benzodiazepines Hypnotic s ("z" drugs) | Risk cognitive effects and injury (fall/MVA); same ADE as benzo's | Avoid chronic use, >90 days | Moderate | Strong |
| Estrogens with or w/o progestin | Carcinogenic potential, lack of efficacy in dementia/CV dz prevention | Avoid oral and topical patch. Topical cream safe and effective for vaginal symptoms | High | Strong |
| Muscle Relaxants | Ineffective at tolerated doses, antichol, falls | Avoid | Moderate | Strong |

Table 3. Drug-disease/syndrome Interactions

| Disease or Syndrome | Drug | Rationale | Recomm. | Quality of Evidence | Strength of Recomm. |
|---------------------|---|--|---------|--|---|
| Syncope | AChEIs Peripheral α -blockers Tert. TCAs Chlorpromazine Thioridazine Olanzapine | Orthostatic hypotension or bradycardia | Avoid | α - blockers: High TCAs, AChEIs, antipsych: Moderate | AChEIs, TCAs: Strong α - blockers, antipsych.: Weak |
| Insomnia | Oral decongestants Stimulants Theobromines | CNS stimulant effects | Avoid | Moderate | Strong |

Caveats

- “Z” drugs for sleep: avoid *chronic* use
- Testosterone: avoid *unless indicated* for moderate to severe hypogonadism
- Topical vaginal estrogen: acceptable *low dose* use for specific conditions
- Spironolactone: avoid >25 mg/day in pts with heart failure or CrCl <30
- Antipsychotics: avoid *unless* nonpharm treatment has failed or threat to self/others

AGS Beers Criteria Website

Criteria

- Full Article
- Editorial
- Perspective

Beers Criteria Pocket Card

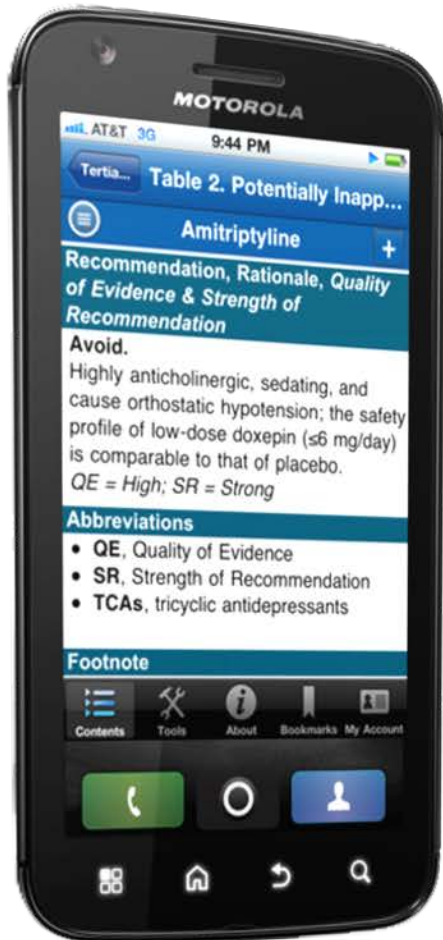
Beers Criteria App

Public Education Resources for Patients & Caregivers

- *AGS Beers Criteria* Summary
- 10 Medications Older Adults Should Avoid
- Avoiding Overmedication and Harmful Drug Reactions
- What to Do and What to Ask Your Healthcare Provider if a Medication You Take is Listed in the *Beers Criteria*
- My Medication Diary - Printable Download
- Eldercare at Home: Using Medicines Safely - Illustrated PowerPoint Presentation

Available at Americangeriatrics.org

FREE Beers Criteria Apps





www.americangeriatrics.org



[Facebook.com/AmericanGeriatricsSociety](https://www.facebook.com/AmericanGeriatricsSociety)



[Twitter.com/AmerGeriatrics](https://twitter.com/AmerGeriatrics)



[linkedin.com/company/american-geriatrics-society](https://www.linkedin.com/company/american-geriatrics-society)



THE AMERICAN GERIATRICS SOCIETY

Geriatrics Health Professionals.

Leading Change. Improving care for older adults.

PEARL: UI prevalent and has big impact

1. *Moderate to severe* UI is highly prevalent:

- ◆ Women, by age:
 - 20-39 - 7%
 - 40-59 - 17%
 - 60-79 - 23%
 - ≥ 80 - 32%

- ◆ Men: one-third the rate in women until age ~65

- ◆ Nursing home: 60-78%

2. *Numbers increasing* with population aging, men undergoing prostate cancer treatment

3. *Significant impact* on quality of life; morbid for older persons; very costly

Nygaard I, et al. *JAMA* 2008, 300:1311.

Tennstedt S, et al. *Am J Epidemiol* 2008, 167:390.

Sahyoun NR, et al, *Aging Trends* 2001(4):1-8.

UI as a Geriatric Syndrome

- In frail elderly, UI constitutes a ***syndromic model*** with multiple interacting risk factors
 - age-related physiologic changes
 - Comorbidity
 - common pathways between them
- Accumulated effects of multiple impairments increase vulnerability to situational challenges
- UI requires a broader conception of “disease” including patient-level factors and a perspective that extends beyond the lower urinary tract and its neurological control

PEARL: UI is not just the Lower urinary tract

- Comorbid medical illness and impairments (e.g., dementia, falls, dizziness, decreased vision and hearing) are independently associated with UI, especially if there are multiple conditions.
- Comorbidity may affect continence through multiple mechanisms
 - Example of diabetes mellitus
 - Detrusor dysfunction – uninhibited contractions, cystopathy
 - Hyperglycemia - osmotic diuresis and polyuria
 - Medications
 - Constipation
 - Functional impairment – amputation
 - Cognitive impairment (vascular dementia).

PEARL: Continence takes more than the bladder



Other determinants of continence:

Environment

Mentation

Manual dexterity

Medical conditions and medications

Mobility

Factors that Cause or Worsen UI

Comorbid Disease

- Diabetes
- Congestive heart failure
- Degenerative joint disease
- Sleep apnea
- Severe constipation

Neurological / Psychiatric

- Stroke
- Parkinson's disease
- Dementia (advanced)
- Depression (severe)

Function and Environment

- Impaired cognition
- Impaired mobility
- Inaccessible toilets
- Lack of caregivers

PEARL: Medications Can Cause or Worsen UI

Medical conditions

ACEI - cough
Causing edema -
Nifedipine
Amlodipine
“Glitazones”
NSAIDs/COX2
Gabapentin
Pregabalin
Any causing constipation
Cholinesterase inhibitors

Mobility

Antipsychotics



Mentation

Sedative hypnotics
Benzos
Anticholinergics

LUT function

↓ Bladder contractility
Anticholinergics
Calcium blockers
↑ Sphincter tone
Alpha agonist
↓ Sphincter tone
Alpha blocker
Diuretics

Quality Care of UI - #1

- Screen for UI in all women ≥ 65
 - “Have you had any problems with bladder or urine control?”
 - “Do you ever leak urine when you don’t want to?”
- Reliability
 - Kappa 0.8 (95% CI, 0.3-0.9)
 - Percentage agreement 90% (95% CI, 84%-95%)

Characterize the type of UI – 3IQ Questionnaire

In the past 3 months, have you ever leaked urine, even a small amount?

↓ Yes

Did you leak urine most often when you were:

Performing some physical activity, such as coughing sneezing; lifting or exercising? _____ **Stress**

Had the urge or feeling you needed to empty your bladder, and could not get to the bathroom fast enough? _____ **Urge**

About equally as often with physical activity as with a sense of urgency? _____ **Mixed**

Without physical activity or without a sense of urgency? _____ **Other**



| | Urge | Stress |
|------------------------------|-------------------------------------|-------------------------------------|
| Sensitivity | 0.75 (0.68 to 0.81) | 0.86 (CI, 0.79 to 0.90) |
| Specificity | 0.77 (0.69 to 0.84) | 0.60 (CI, 0.51 to 0.68) |
| Post-test probability | Increases with age (from 52 to 91%) | Decreases with age (from 87 to 42%) |

“Not to miss” diagnoses presenting with UI

- Bladder, prostate, other pelvic cancer
 - Abrupt onset of UI
 - Hematuria
 - Pelvic pain
- Neurological disease
 - Abrupt onset of UI
 - Temporal association with new neuro sx

Quality Care in UI #2 – Evidence-based evaluation

Comorbidity and Exam

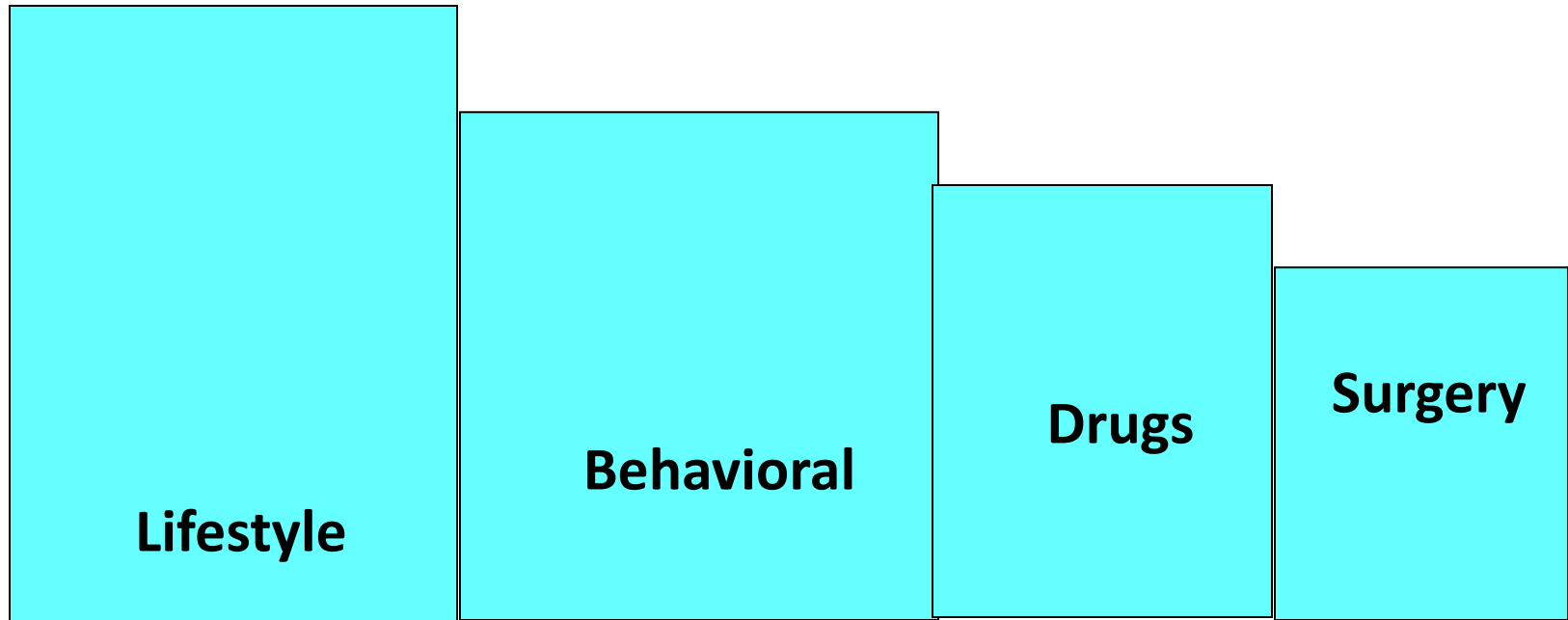
- Conditions and medications which may cause or worsen UI
 - DIAPPERS mnemonic
 - **D**elirium
 - [Infection] 
 - [A**T**rophic vaginitis] 
 - **P**harmaceuticals
 - **P**sychological condition
 - **E**xcess urine output
 - **R**educed mobility
 - **S**tool impaction
- Physical exam
 - Rectal examination for fecal loading or impaction (Grade C)
 - Functional assessment (mobility, transfers, manual dexterity, ability to successfully toilet) (Grade A)
 - Screening test for depression (Grade B)
 - Cognitive assessment (to assist in planning management, Grade C)

*Now evidence that
treatment of these **does**
not decrease UI*

Indications for immediate referral

- Hematuria
- Pelvic pain
- Acute onset of UI
- Complex neurological disease *other than dementia*
- Pt desires surgery for stress UI
- Marked pelvic floor prolapse
- Dysuria, pain, frequent small voids (possible interstitial cystitis)

Quality Care in UI - #3: Stepwise Treatment



Lifestyle

Caffeine and diuretic beverages

Fluid intake

Constipation

Weight loss

Smoking

47% decrease in obese women (BMI 36) losing 17 lb vs 28% in controls

30% decrease in odds for stress UI with 3.5 kg loss

Subak LL et al, N Engl J Med 2009; 360:481-490

Brown JS et al. Diabetes Care 2006; 29:385



Behavioral

Bladder training

Pelvic muscle exercises

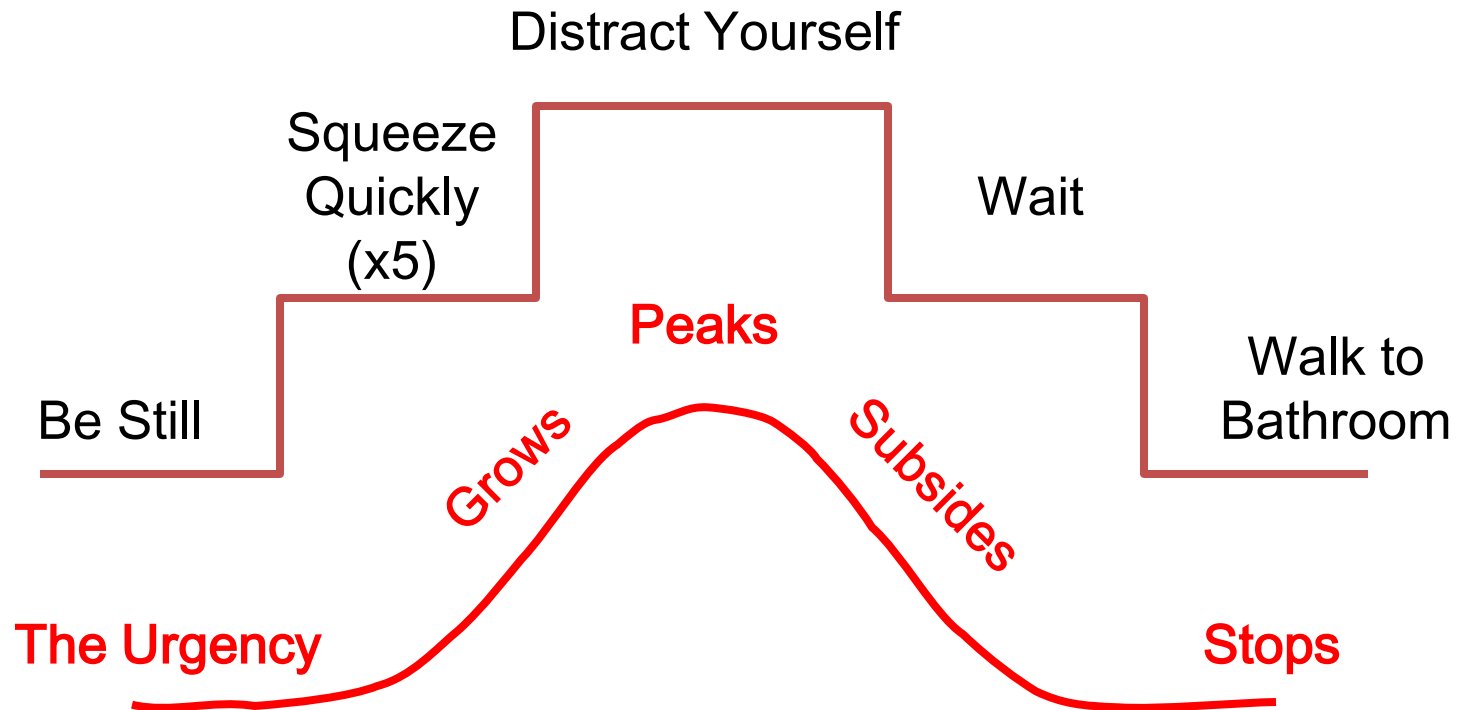
*Use in combination for
both urge and stress UI*

Bladder training: “mind over bladder”

Two components:

1. Void on schedule during the day (start q 2 hr)
2. Urge suppression

Efficacy: > 35% reduction in urge UI over control; patient perception of cure, RR 1.54



Pelvic Muscle Exercises

- **PEARL: *strength training***
 - Identify correct muscle group
 - 3 sets of 8-12 contractions held 6-8 secs, done 3-4x/ week
 - Continue for 15-20 wk
 - Handout alone can reduce leakage by 50% (available on *UpToDate*)
 - Efficacy (cure) over control: risk difference, 0.13 (95% CI, 0.07- 0.20)
- Biofeedback can help with teaching
 - Medicare covers if pt fails 4 wks of conventional teaching
- **PEARL: Effective for men with post-prostatectomy UI**
 - Continence rate 57% at 1-2 months (Odds ratio 1.54)

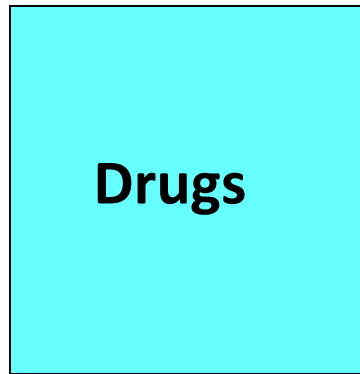
Morved et al, *Obstet Gynecol* 2002

Burgio et al, *JAMA* 2002

MacDonald R et al. *BJU International* 2007

Shamliyan TA et al, *Ann Int Med* 2008





Antimuscarinics for
urge and mixed UI

β -3 agonist

Stress UI?

Current antimuscarinics

1. Oxybutynin

- Oxybutynin 2.5-5 mg bid-qid
- Ditropan XL™ (as generic extended release), 5-20 mg daily
- Oxytrol™ patch 3.9 mg 2x/week
- Gelnique^{RM} 3% (84 mg, pump) and 10% (100 mg, sachet) daily

2. Tolterodine

- Detrol™ 1-2 mg bid
- Detrol LA™ 2-4 mg daily

3. Fesoterodine

- Toviaz™ 4–8 mg daily

4. Trospium chloride

- Sanctura™ 20 mg bid
- Sanctura™ XR 60 mg daily

5. Darifenacin

- Enablex™ 7.5-15 mg daily


6. Solifenacin

- Vesicare™ 5-10 mg daily

New Geriatric Uro-gynecology clinic for older women with urinary incontinence

Catherine DuBeau MD

Memorial Campus



Screening Considerations in Older Adults

- Older adults less likely to be represented in clinical trials
- Can results be extrapolated from younger adults?
- Nontraditional outcomes may be more important
- Function, prognosis and health status varies greatly among people of the same age
- Net benefit may not always be clear



Screening

Prostate

USPSTF 2012 no screening

ACP if yes, screen b/n 50-69

RCTs min benefit in prostate Ca specific mortality within 10 years and no benefit for all mortality out to 14 years

* Do not screen older men esp if life expectancy is less than 10 years

Screening

Colorectal

USPSTF

screen for ages 50-75

no screening for ages > 85

routine screening not recommended
for 76-85*

*Some considerations in this age group

Screening

Breast Cancer

USPSTF screening q 2 y for women aged 50-74 years

insufficient evidence to assess the additional benefits/harms of screening women 75 years or older

AGS screening q 1-2 years for women with a life expectancy greater than or = to 4 years

Recommended Immunizations Older Adults

- Influenza for adults ≥ 65
- Tetanus q 10 y (Tdap booster X 1)
- Pneumovax for adults ≥ 65 , repeat X1 if received before 65
- Zoster for adults ≥ 60
 - May give even with prior zoster infection
 - Do not give if immunocompromised
 - Cost may be a factor

Driving Evaluation and Older Adults

MD not required to report an unqualified driver

Driver required to self report

Seizure/LOC/AICD firing no driving for 6 mo

Requirements:

- vision 20/40 at least 1 eye

- peripheral vision 120 degrees

- color vision (at least green/amber)

- ability to perform self care

- CHF class 3 or less

- O2 sat 88% or more



Driving Evaluation and Older Adults

AMA/NHTSA

Assessment of Driving-Related Skills (ADReS)

Eye sight

Acuity

Visual fields by confrontation

Motor function

Walking speed

ROM

Strength testing

Cognitive tests

Trailmaking B

Clock

www.nhtsa.dot.gov/people/injury/olddrive/OlderDriversBook

Driving Evaluation and Older Adults

Risk for failing road test

Clinical Dementia Rating Scale

Caregiver's Assessment

Prior collisions/violations

MMSE<24

Aggressive/impulsive personality

Self report of limited driving ability

Driving Evaluation and Older Adults

Self assessment

Am I a safe Driver?

Self Assessment/ Am I a Safe Driver?

- I get lost while driving.
- My friends and family members say they are worried about my driving.
- Other cars seem to appear out of nowhere.
- I have trouble seeing signs in time to respond to them.
- Other drivers drive too fast.
- Other drivers often honk at me.
- Driving stresses me out.
- After driving, I feel tired.
- I have had more “near misses” lately.
- Busy intersections bother me.
- Left-hand turns make me nervous.
- The glare from oncoming headlights bothers me.
- My medication makes me dizzy or drowsy.
- I have trouble turning the steering wheel.
- I have trouble pushing down on the gas pedal or brakes.
- I have trouble looking over my shoulder when I back up.
- I have been stopped by the police for my driving recently.
- People will no longer accept rides from me.
- I don't like to drive at night.
- I have more trouble parking lately.

Driving Evaluation and Older Adults

Commonwealth of Massachusetts 2010

Requires drivers 75 and older to renew their licenses in person and pass an eye exam every five years, rather than 10 for everyone else

Community Resources

- Central Massachusetts Agency on Aging (CMAA)
- Part of a network of Area Agencies on Aging (AAAs) that provide services to seniors age 60 and older.
- Focus is to help seniors stay in their homes and live independent and dignified lives.
- Provides information and referrals, publications, caregiver support, and a searchable online database of programs and services for seniors and caregivers living in Central Massachusetts.

www.seniorconnection.org

Community Resources

Elder Services of Worcester Area, Inc (ESWA)

- Aging Services Access Point (ASAP)
- One-stop entry points for all of the services and benefits available to seniors in their communities, with special focus on the needs of frail seniors.
- Provides information, applications, direct services, and referrals.
- Works with other agencies and providers to make sure that Worcester area seniors and caregivers have access to all essential services.

Community Resources

Elder Services

- Elder Protective Service
- Massachusetts Home Care Program
- Money Management Program
- Nutrition Programs
 - Meals on Wheels
 - Dining Center Meals

Some services have eligibility requirements, some have fees, and some are free for all seniors

www.ewsa.org

Community Resources

Elder Abuse

Massachusetts Elder Abuse Hot Line at 1-800-922-2275

- Massachusetts law requires health care professionals, police and other emergency responders, elder outreach workers, directors of home health agencies to report elder abuse
- Older adults (>60 yo)
- Can also be inflicted by another person or self
- Can include:
 - physical abuse
 - emotional or verbal abuse
 - sexual abuse
 - financial exploitation
 - caretaker neglect
 - self-abuse or self neglect

Community Resources

Worcester Elder Affairs Division

- City department in charge of programs and services for Worcester's senior population, age 60 or older.
- Funded primarily by the City of Worcester, but also receives funds from the state and federal government and private sources.
- Role to assess the needs of Worcester's seniors and to make sure that programs are available to meet those needs. Services include information and referrals, problem resolution, outreach to isolated elders, and help applying for public benefits.
- Operates the Worcester Senior Center and publishes the monthly Senior Scoop newsletter

www.worcesterma.gov/ocm/elder-affairs

Community Resources

1-800-AGE-INFO

www.800ageinfo.com

A joint project of the Massachusetts Executive Office of Elder Affairs and Mass Home Care

Statewide resources for Massachusetts Elders and their families

Questions

