2015 ADA Standards of Diabetes Care

Diabetes is a significant problem in older adults, affecting greater than 25% of patients over the age of 65 — a number that is predicted to sharply increase over the coming years. The American Diabetes Association (ADA) annually publishes the Standards of Medical Care in Diabetes, a guideline which reflects the compilation of best practice recommendations. The 2015 Standards were released this past January and included updates incorporating recent recommendations from the Eighth Joint National Committee (JNC-8) and American College of Cardiology (ACC)/American Heart Association (AHA). These updates reflect a change to long-standing recommendations surrounding blood pressure control in diabetes management.

Glycemic Control

An important change this year has been a realignment of blood glucose goals as they correlate to A1C. This change arises from the A1C-Derived Average Glucose (ADAG) trial, which suggested that actual blood glucose readings corresponding to specific A1C levels were higher than previously thought. Mean plasma glucose levels according to A1C from the trial are shown below (Table 1).

The ADA now recommends a pre-meal blood glucose target of 80-130 mg/dL.

Hypertension Management

JNC-8, published in February of 2014, relaxed blood pressure goals for patients with diabetes by increasing target blood pressures from less than 130/80 mmHg to less than 140/90 mmHg. The ADA adopted this recommendation in the 2015 Standards of Care because it represents the accumulation of randomized-controlled trial (RCT) evidence. The data strongly indicate that lowering blood pressure to <140/90 mmHg reduces cardiovascular events, stroke, and diabetic kidney disease. Trials such as the Action in Diabetes and Vascular Disease-Blood Pressure (ADVANCE-BP) and Action to Control Cardiovascular Risk in Diabetes (ACCORD) suggested systolic blood pressures (SBP) ranging between 130 and 140 mmHg were sufficient to provide cardioprotection. Additionally, more stringent SBP control did not correlate to improved outcomes. A meta-analysis of RCTs involving patients with diabetes found no significant reduction in mortality when targeting a blood pressure goal <130/80 mmHg compared to blood pressure ranging between 140-160 mmHg systolic and 85-100 mmHg diastolic, though there was a minor reduction in strokes. Similarly, the diastolic blood pressure (DBP) goal for patients with diabetes was relaxed to integrate higher-quality evidence supporting a DBP goal of <90 mmHg. However, the Standards note

<p>| Table 1. Mean glucose levels for specified A1C levels |
|-----------------|------------------|</p>
<table>
<thead>
<tr>
<th>A1C</th>
<th>Mean Plasma Glucose</th>
</tr>
</thead>
<tbody>
<tr>
<td>7%</td>
<td>154 mg/dL</td>
</tr>
<tr>
<td>8%</td>
<td>183 mg/dL</td>
</tr>
<tr>
<td>9%</td>
<td>212 mg/dL</td>
</tr>
</tbody>
</table>

INSIDE THIS ISSUE:

- DIABETES STANDARDS OF CARE 1
- SEROTONIN SYNDROME 4
- FDA APPROVALS 5
- STAR+PLUS EXPANSION 5
- SAVE THE DATES 5
- STUDENT FORUM 6
- GERIATRIC PHARMACY CURRICULUM 6
that more stringent BP control may be appropriate in certain patients such as younger patients with significant risk for long-term complications of stroke or chronic kidney disease.

**Cholesterol Management**

The ACC and AHA published the latest revision of the Blood Cholesterol Guideline in November of 2013. The revision centers on the removal of specific cholesterol targets previously recommended by the Adult Treatment Panel III (ATP III) guidelines. As elaborated upon in the Winter Edition of this newsletter, the new recommendations identify patients within clinical atherosclerotic cardiovascular disease (ASCVD) risk categories and stratify treatment into low-, moderate-, or high-intensity statin therapy. This change was driven by the review of cardiovascular disease prevention RCTs, which identified relative reduction of low-density lipoprotein (LDL), rather than specific LDL targets, to be the critical factor in reducing ASCVD events. The 2015 ADA Standards of Care adopted the recommendations to select statin therapy stratified by intensity, however rather than using Pooled Cohort 10-year ASCVD risk calculations, the presence of cardiovascular disease (CVD) risk factors or overt CVD are the key determinates of statin intensity (Table 2).

The Standards recognize there is limited data for patients greater than 75 years old and that statin therapy should be individualized based on risk profile.

**Immunizations**

The ADA immunization recommendations have been expanded to include the Centers for Disease Control (CDC) and Prevention Advisory Committee on Immunization Practices (ACIP) for pneumococcal vaccinations with the 13-valent conjugate vaccine (PCV13; Prevnar®) in addition to the 23-valent polysaccharide vaccine (PPSV23; Pneumovax®). All adults with diabetes should receive the PPSV23. Patients 65 years or older who have not been previously vaccinated with a pneumococcal vaccine should receive the PCV13 first then the PPSV23 after 6-12 months. Patients ≥65 years who previously received the PPSV23 should receive the PCV13 at least 12 months after the PPSV23, and may be provided a second dose of the PPSV23 at least 6-12 months after the PCV13, provided that it has been at least 5 years since their initial PPSV23.

**Diabetes Management in Older Adults**

Regardless of any changes, the Standards recognize first and foremost the importance of individualized, patient-centered care, as the most important tenet of geriatric pharmacotherapy. Older patients with diabetes have been observed to experience higher rates of premature deaths, functional disability, and co-existing illnesses. In addition to a higher prevalence of CVD, chronic kidney disease, and stroke, older patients with diabetes are more likely to have comorbidities that may complicate management, such as depression, anxiety, heart failure, and arthritis compared to age-matched controls. Therefore, elderly patients with diabetes must be managed with diligent and thoughtful consideration to quality of life, expected benefit from therapy, concurrent illnesses, risk of adverse events, and life expectancy.

The Standards recognize the need for an individualized, holistic approach in geriatric diabetes patients and have provided goals of therapy stratified by general health status. The recommended A1C, blood glucose, blood pressure, and cholesterol targets are shown in table 3.

Consultant pharmacists are strategically positioned to improve outcomes and quality of life in older patients with diabetes. Elderly patients are more susceptible to hypoglycemia and its consequences, which often can be exacerbated by cognitive impairment and hypoglycemia unawareness. These patients are not only at a higher risk of severe hypoglycemia due to their limited ability to

| Table 2. 2015 ADA Recommendations for statin treatment in people with diabetes |
|---|---|---|
| Age | Risk factors | Recommended statin dose* | Monitoring with lipid panel |
| < 40 years | None | Moderate or High | Annually or as needed to monitor for adherence |
| 40-75 years | None | Moderate or High | As needed to monitor adherence |
| >75 years | None | Moderate or High | As needed to monitor adherence |

*Adapted from 2015 ADA Standards of Medical Care in Diabetes

**Overt CVD includes those with previous cardiovascular events or acute coronary syndromes

**CVD risk factors include LDL cholesterol ≥100mg/dL, high blood pressure, smoking, and overweight and obesity

***Pooled Cohort includes Cohort 10-year ASCVD risk calculations, the presence of CVD risk factors or overt CVD are the key determinates of statin intensity (Table 2).
glycemic hyperosmolar symptoms, and poor wound healing. A1C of 8.5% equates to an estimated average glucose of ~200mg/dL. Looser glycemic targets than this may expose patients to uncontrolled metastatic cancer, may cause significant symptoms or impairment of functional status and significantly reduce life expectancy.

The presence of a single end-stage chronic illness, such as stage 1-4 congestive heart failure or oxygen-dependent lung disease, chronic kidney disease requiring dialysis, or uncontrolled metastatic cancer, may cause significant symptoms or impairment of functional status and significantly reduce life expectancy.

A lower A1C goal may be set for an individual if achievable without recurrent or severe hypoglycemia or undue treatment burden.

The patient characteristic categories are general concepts. Not every patient will clearly fall into a particular category. Cognitive impairment or 2+ ADL impairments or coexisting chronic illnesses* or 2+ ADL dependencies)

Very complex/poor health (long-term care or end-stage chronic illness** or moderate-to-severe cognitive impairment or 2+ ADL deficiencies)

The patient characteristic categories are general concepts. Not every patient will clearly fall into a particular category. Consideration of patient and caregiver preferences is an important aspect of treatment individualization. Additionally, a patient’s health status and preferences may change over time. ADL, activities of daily living.

A lower A1C goal may be set for an individual if achievable without recurrent or severe hypoglycemia or undue treatment burden.

The presence of a single end-stage chronic illness, such as stage 1-4 congestive heart failure or oxygen-dependent lung disease, chronic kidney disease requiring dialysis, or uncontrolled metastatic cancer, may cause significant symptoms or impairment of functional status and significantly reduce life expectancy.

A1C of 8.5% equates to an estimated average glucose of ~200mg/dL. Looser glycemic targets than this may expose patients to acute risks from glucosuria, dehydration, hyperglycemic hyperosmolar symptoms, and poor wound healing.

Additionally, we can provide education on appropriate targets and goals for blood glucose ranges, ensure appropriate medication administration, review medication safety profiles, and much more. Another potentially valuable pharmacist impact relates to adequate screening and preventative interventions.

Table 3. Framework for considering treatment goals for glycemia, blood pressure, and dyslipidemia in older adults with diabetes

<table>
<thead>
<tr>
<th>Patient characteristics/health status</th>
<th>Rationale</th>
<th>Reasonable A1C goal†</th>
<th>Fasting/pre-prandial glucose (mg/dL)</th>
<th>Bedtime glucose (mg/dL)</th>
<th>Blood pressure (mmHg)</th>
<th>Lipids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy (few coexisting chronic illnesses, intact cognitive and functional status)</td>
<td>Longer remaining life expectancy</td>
<td>&lt;7.5%</td>
<td>90-130</td>
<td>90-150</td>
<td>&lt;140/90</td>
<td>Statin unless contraindicated or not tolerated</td>
</tr>
<tr>
<td>Complex/intermediate (multiple coexisting chronic illnesses* or 2+ instrumental ADL impairments or mild-to-moderate cognitive impairment)</td>
<td>Intermediate remaining life expectancy, high treatment burden, hypoglycemia vulnerability</td>
<td>&lt;8.0%</td>
<td>90-150</td>
<td>100-180</td>
<td>&lt;140/90</td>
<td>Statin unless contraindicated or not tolerated</td>
</tr>
<tr>
<td>Very complex/poor health (long-term care or end-stage chronic illness** or moderate-to-severe cognitive impairment or 2+ ADL deficiencies)</td>
<td>Limited remaining life expectancy makes benefit uncertain</td>
<td>&lt;8.5%*</td>
<td>100-180</td>
<td>110-200</td>
<td>&lt;150/90</td>
<td>Consider likelihood of benefit with statin (secondary prevention more so than primary)</td>
</tr>
</tbody>
</table>

Adapted From 2015 ADA Standards of Medical Care in Diabetes

This represents a consensus framework for considering treatment goals for glycemia, blood pressure, and dyslipidemia in older adults with diabetes. The patient characteristic categories are general concepts. Not every patient will clearly fall into a particular category. Consideration of patient and caregiver preferences is an important aspect of treatment individualization. Additionally, a patient’s health status and preferences may change over time. ADL, activities of daily living.

*Coexisting chronic illnesses are conditions serious enough to require medications or lifestyle management and may include arthritis, cancer, congestive heart failure, depression, emphysema, falls, hypertension, incontinence, stage 3 or worse chronic kidney disease, myocardial infarction, and stroke. By "multiple", we mean at least three, but many patients may have five or more.

**The presence of a single end-stage chronic illness, such as stage 1-4 congestive heart failure or oxygen-dependent lung disease, chronic kidney disease requiring dialysis, or uncontrolled metastatic cancer, may cause significant symptoms or impairment of functional status and significantly reduce life expectancy.

Table 4. Diabetes Medication Considerations in Older adults

<table>
<thead>
<tr>
<th>Biguanides (metformin)</th>
<th>Sulfonlureas (e.g. glipizide)</th>
<th>Thiazolidinediones (e.g. pioglitazone)</th>
<th>DPP-IV inhibitors (e.g. sitagliptin)</th>
<th>SGLT2 inhibitors (e.g. canagliflozin)</th>
<th>GLP-1 agonists (e.g. exenatide)</th>
<th>Insulin</th>
</tr>
</thead>
<tbody>
<tr>
<td>May be a poor choice in renal dysfunction, significant heart failure, dehydration, or other hypoxic states. Can cause vitamin B12 deficiency. Renally adjust.</td>
<td>Increases risk of hypoglycemia. Use caution in renal impairment. Increases weight. Not recommended in GFRD deficiency.</td>
<td>If used at all, should be used very cautiously in patients with, or at risk of, heart failure or osteoporosis/fractures. CI in NYHA Class III/IV heart failure. Linked to hepatic failure.</td>
<td>Possible link to acute pancreatitis. Saxagliptan associated with increased hospitalizations for heart failure. Renally adjust.</td>
<td>Increases risk of genitourinary infections, polyuria, and volume depletion/hypotension. Increases LDL and transiently increases serum creatinine. CI in eGFR &lt;30mL/min/1.73m²</td>
<td>May require refrigeration. Increases heart rate. Possible link to acute pancreatitis. Avoid use in severe GI disease. CI in ESRD and history or FH of medullary thyroid carcinoma.</td>
<td>Increases risk of hypoglycemia. SSI as the sole method of insulin management is strongly discouraged.</td>
</tr>
</tbody>
</table>

2014 Evidence-Based Guideline for the Management of High Blood Pressure in Adults.


References:
American Diabetes Association Standards of Medical Care in Diabetes—2015. 2015;38 (Supplement 1). http://care.diabetesjournals.org/content/38/Supplement_1.

Serotonin Syndrome

Serotonin is an important neurotransmitter which, under normal conditions, is produced by nerve cells of the brain, spinal cord, and intestines. Serotonin regulates functions such as attention, behavior, body temperature, digestion regulation, blood flow, and breathing. But, too much serotonin may lead to problems, such as serotonin syndrome. This increase in serotonergic activity in the central or peripheral nervous system is a potentially life threatening condition. Tentative mechanisms of the disorder include increased serotonin synthesis/release, reduced serotonin uptake or metabolism, and direct serotonin receptor activation.

Individuals at increased risk of developing serotonin syndrome include: those who have recently started or increased a medication known to increase serotonin, those taking serotonin-increasing herbal supplements, individuals using illicit drugs to increase serotonin levels and patients taking more than one drug known to increase serotonin levels. The risk of serotonin syndrome increases with the combination of agents known to increase serotonin. Drugs that inhibit cytochrome P450 2D6 and/or 3A4 iso -enzymes can also increase risk by increasing levels of selective serotonin reuptake inhibitors.

In most cases, serotonin syndrome manifests within 24 hours and is often seen on a wide spectrum of symptoms (mild to severe). Not all patients with serotonin syndrome will present in the same manner or to the same degree of symptom severity which makes a diagnosis difficult to ascertain. Milder cases of serotonin syndrome can be overlooked by healthcare providers, especially in the geriatric population, where common serotonergic symptoms can be mistaken for diseases of aging or attributed to adverse drug events/disease states.

Diagnosis is often one of disease and symptoms exclusion (e.g. infection, metabolic disorder, substance intoxication/withdrawal) with a physical exam, medical history, and medication overview to aid proper syndrome identification. Hunter’s criteria is also utilized to predict serotonin toxicity in patients who are known to have ingested a serotonergic agent with 84% sensitivity and 97% specificity for serotonin syndrome.

If symptoms are recognized quickly, serotonin syndrome tends to have a favorable outcome. First line management focuses on removal of the offending drug(s) as well as providing supportive patient care. Milder cases usually do not require hospitalization, but patients with moderate to severe symptoms tend to require more extensive therapy as well as hospitalization. Supportive therapy in these patients tends to include benzodiazepines to help control symptoms of agitation or tremor, and although not supported with evidence, cyproheptadine may be administered in the ED. The gold standard for managing severe symptoms such as hyperthermia or increased muscle rigidity still focuses on using drugs for neuromuscular paralysis and sedation.

In the senior population, serotonin syndrome is often difficult to identify, as a wide spectrum of symptoms serve for a difficult diagnosis. Treatment focuses on elucidating the causative agent and promptly removing it from the patient’s drug regimen. With proper treatment serotonin syndrome can usually be reversed and the patient’s symptoms improved.

**Antipsychotic Reduction Tip:**

“Agitation” tends to be a catch-all explanation for the resident who is having behavioral problems. However, as the featured column in this edition of the newsletter alludes to, serotonin syndrome may manifest as many of the symptoms we call “agitation” including restlessness, anxiety, mental status changes and tremor. Unfortunately, this “agitation” may be treated with an antipsychotic. Given the many serotonergic medications our residents are on, the additive effects of serotonin on the risk of serotonin syndrome, and the propensity for us to look to other disease states as a cause for these issues, it stands to reason that one way to reduce unnecessary antipsychotic use might be a medication review for those residents whose current medication regimen may be contributing to this agitation. Obviously, this cannot be helped for many of the disease states serotonergic medications treat, but in instances where a less serotonergic alternative exists (e.g. changing tramadol to acetaminophen or hydrocodone/acetaminophen), a trial might be appropriate. Remember, serotonin syndrome can manifest as a spectrum of symptoms with a wide range of severity, and the best way to prevent it is to make sure the serotonergic burden is as low as possible.

**Common Medications which Increase Serotonin**

- **Antidepressants**
  - Citalopram (Celexa)
  - Fluoxetine (Prozac, Sarafem)
  - Paroxetine (Paxil)
  - Escitalopram (Lexapro)
  - Sertraline (Zoloft)
  - Duloxetine (Cymbalta)
  - Venlafaxine (Effexor)
  - Levomilnacipran (Peztima)
  - Desvenlafaxine (Pristiq)
  - Nortriptyline (Pamelor)
  - Amitriptyline (Elavil)
  - Transdermal Selegiline (Lemelan)
  - Bupropion (Wellbutrin)
  - Trazodone (Desyrel)
  - St. John’s Wort

- **Illicit Drugs**
  - Amphetamines
  - Cocaine

- **Mood Stabilizers/Anti-epileptics**
  - Carbamazepine (Tegezol)
  - Valproic Acid (Depakene)
  - Lithium (Lithobid)

- **Anti-nausea**
  - Metoclopramide (Reglan)
  - Granisetron (Kytril)
  - Droperidol (Inapsine)
  - Ondansetron (Zofran)

- **Pain Medications**
  - Tramadol (Ultram, Ultracet)
  - Pentazocine (Talwin)
  - Fentanyl (Duragesic)
  - Meperidine (Demerol)
  - Other
  - Lorcet (Zyvox)
  - Cyclobenzaprine (Flexeril)
  - Dextromethorphan-containing products
  - Sumatriptan (Imitrex) and other “triptans”
FDA APPROVALS

Afrezza (Insulin Human Inhalation Powder)
Approved: June 2014
Mechanism of Action: Rapid-acting inhaled insulin
Dosing: Insulin-naïve — 4 units by oral inhalation at each meal. Patients previously on prandial insulin — dose varies depending on dose per meal of prior insulin
Key Points:
Boxed warning against use in patients with chronic lung disease due to bronchospasm observed in patients with asthma and COPD.
Requires dexterity and may require multiple administrations per meal.
Cartridges contain 4 or 8 units each, which cannot be split. Unopened foil packages must be refrigerated; Opened or unrefrigerated cartridges must be discarded after 10 days.
May cause cough, throat pain, or irritation.
http://www.accessdata.fda.gov/drugsatfda_docs/label/2014/022472lbl.pdf

Trulicity (Dulaglutide)
Approved: September 2014
Mechanism of Action: Glucagon-like peptide (GLP-1) agonist for the treatment of DM2
Dosing: 0.75mg subcutaneously once weekly in the abdomen, thigh, or upper arm at any time of the day, with or without food. Max dose 1.5mg/week
Key Points:
Should not be used first-line.
Class-wide boxed warning for thyroid C-cell tumors and personal or family history of medullary thyroid carcinoma.
Administer separately from insulin and not at adjacent sites to each other.
Avoid use in patients with pre-existing severe gastrointestinal disease.
May cause nausea, diarrhea, vomiting, abdominal pain, and decreased appetite; Discontinue if pancreatitis is suspected.

Jardiance (Empagliflozin)
Approved: August 2014
Mechanism of Action: Sodium glucose cotransporter 2 (SGLT2) inhibitor for the treatment of DM2
Dosing: 10mg PO once daily in the morning with or without food. Max dose 25mg/day
Key Points:
Demonstrated efficacy as monotherapy and in combination with metformin, sulfonylureas, pioglitazone, and insulin.
Should not be used for type 1 diabetes or severe renal impairment.
May cause dehydration, hypotension, dizziness, syncope, and renal deterioration; Increased risk in the elderly, renal impairment, and concomitant treatment with diuretics. Increases urination and risk of genitourinary infections.
http://www.accessdata.fda.gov/drugsatfda_docs/label/2014/204629s000lbl.pdf

Rapivab (Peramivir)
Approved: December 2012
Mechanism of Action: Neuraminidase inhibitor for the treatment of influenza within 48 hours of symptom onset
Dosing: 600mg IV over 15 minutes as a single dose
Key Points:
May cause diarrhea, neuropsychiatric symptoms (seen with influenza infection) and rarely SJS.
Requires renal adjustment.
http://www.accessdata.fda.gov/drugsatfda_docs/label/2014/206426lbl.pdf

NEW FORMULATIONS
Namzaric (Memantine/Donepezil) ER capsules
- Available as memantine extended-release/donepezil 28mg/10mg or 14mg/10mg
- Take whole or sprinkled on applesauce
Duopa (Carbidopa/Levodopa) Enteric solution
- Available as carbidopa/levodopa 4.63mg/20mg/mL for administration through

TEXAS MEDICAID MANAGED CARE EXPANSION

On March 1, 2015, nursing home (NH) residents who are covered by Medicaid will be transitioned to the STAR+PLUS, Texas Medicaid’s Managed Care system
- Approximately 56,000 residents will be transitioned
- Directed by Senate Bill 7 (83R), which mandated that HHSC and DADS design and implement an acute care services and support system for individuals with intellectual and developmental disabilities
- Expansion of managed care services departs from traditional fee-for-service reimbursement model with the intention to improve quality of care and health outcomes for NH residents through:
  - Coordination of healthcare and access to services
  - Ensuring needs are addressed in the least restrictive and most appropriate setting
  - Reduction of unnecessary hospitalizations and potentially preventable events
- Dual-eligible residents have been transitioned to STAR+PLUS as of January 1, 2015

SAVE THE DATE!

<table>
<thead>
<tr>
<th>Conference</th>
<th>Date</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>APHA 2015 Annual Meeting &amp; Exposition</td>
<td>March 6-8, 2015</td>
<td>San Diego, CA</td>
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<tr>
<td>2015 Texas Pharmacy Association Leadership Symposium</td>
<td>April 6-8, 2015</td>
<td>Austin, TX</td>
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<tr>
<td>Texas ASCP Chapter Spring Meeting</td>
<td>April 18, 2015</td>
<td>Dallas, TX</td>
</tr>
<tr>
<td>Texas Pharmacy Association Law Symposium</td>
<td>June 30, 2015</td>
<td>Austin, TX</td>
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<tr>
<td>2015 Texas Pharmacy Association Conference &amp; Expo</td>
<td>July 10-12, 2015</td>
<td>Woodlands, TX</td>
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<tr>
<td>TGS/TMDA 2015 Conference</td>
<td>August 7-9, 2015</td>
<td>Sugarland, TX</td>
</tr>
<tr>
<td>2015 ASCP Annual Meeting &amp; Exhibition</td>
<td>October 30 - November 1, 2015</td>
<td>Las Vegas, NV</td>
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</tbody>
</table>
University of the Incarnate Word (UIW) Feik School of Pharmacy was fortunate to have Texas ASCP Board Member, Dr. Vicki Rutherford, speak to our school about consultant pharmacy and geriatric care. Due to a keen interest of the students towards geriatric pharmacy, having Dr. Rutherford was a real treat. She discussed the many advantages of being a consultant pharmacist and the long path that she adopted to reach her goal. With her witty humor, she kept us engaged and thoroughly entertained at the meeting. UIW Pharmacy students embrace the idea of having more presentations from ASCP and are grateful that Dr. Rutherford was able to spend some time with us.

- Christina Devlin, Pharm.D. Candidate 2017

Geriatric Pharmacy Curriculum, 3rd edition Available!

- Designed to prepare pharmacy students and pharmacists with the education needed to care for older adults
- Highlights the required competencies in the care of older adults across a spectrum of professional development
  - Pharmacy Students
  - Pharmacy Residents
  - Senior Care Pharmacists
  - Certified Geriatric Pharmacists
  - Clinical and Operational Specialists
- New Tool Kit offers suggestions to assist with topic discussions and pertinent activities to reinforce principles of geriatric care
- Provides key references for the senior care practitioner’s library
- Great resource for preceptors, new learners, and practitioners wishing to ensure they are up-to-date on subject matter relevant to senior care pharmacy!

Available at: https://www.ascp.com/articles/geriatric-pharmacy-curriculum-guide