Care Considerations for the Geriatric Home Infusion Patient

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Speaker Disclosures

• The speaker for this presentation has no conflicts of interest to disclose.

• Off-label and/or investigational drug uses will not be discussed during this presentation.
Objectives:

• Explain the current and future anticipated impact of the ever changing healthcare space on the geriatric patient.

• Review and discuss the key considerations in successful management of the geriatric patient from hospital to home.

• Describe the most commonly seen co-morbid disease states facing geriatric home infusions patients and strategies to help with successful outcomes, including end-of-life considerations.
Objectives:

• Review home infusion medication safety strategies and the importance of communication between the patient, home care nurse, and the home infusion pharmacist

• Describe key educational considerations for the geriatric home infusion patient and caregiver.
“The longer I live the more beautiful life becomes”

~Frank Lloyd Wright

• 1990: 31.2 million
• 2000: 35 million
• 2012: 43.1 million
• 2050: 83.7 million (estimated)

Key Factors in the Aging Population:

The Affordable Care Act

<table>
<thead>
<tr>
<th>Year</th>
<th>Features</th>
</tr>
</thead>
</table>
| 2010 | • Patient's Bill of Rights  
     • Cost-Free Preventative Services  
     • Multiple Consumer Protections |
| 2011 | • Free Preventative Care for Seniors  
     • Established Center for Medicare & Medicaid Innovation  
     • Increase accountability for insurance companies |
| 2012 | • Accountable Care Organizations (ACO's)  
     • Electronic Medical Records (EMR)  
     • Voluntary Long-term care insurance |
| 2013 | • Bundle Payments  
     • Health Insurance Marketplace  
     • Increased reimbursement to PCP’s for Medicaid |
| 2014 | • Prohibit Pre-existing condition discrimination  
     • Medicaid Expansion  
     • Promotion of Individual Responsibility |
| 2015 | • Physician reimbursement on value vs. volume  
     • Employer mandates  
     • Individual mandate fines (first time) |

Medicare Home Infusion Site of Care Act (MHISOMCA)

• Avalere Study
  • 10 year savings to Medicare of over $80 million
  • Savings includes expansion of Medicare Part B

• Bi-partisan support

• Provides for meaningful Medicare coverage

• Increased quality

• Highlights the expertise and experience of our clinicians
What does it all mean?????

• ACA
  • Access to care & services
  • Cost containment
  • Quality and Outcomes

• MHISOCA
  • Coverage
  • Access
  • Less risk

Bettemarie’s Story

http://articles.philly.com/2015-12-30/news/69382595_1_nursing-home-own-home-therapy
From Hospital to Home...
Keys for a Successful Transition

• Early identification

• Proper clinical assessment

• Environment

• Caregiver
Early Identification

• Early and effective transition identified as leading factor in reducing hospital readmissions within 30 days of discharge

• Programs:
  • Care Transitions Program (Coleman et al., 2006)
  • Transitional Care Model (TCM; Naylor & Sochalski, 2010)
  • STAAR (Sevin et al., 2013)
  • BOOST (Project BOOST, 2010)
    • www.hospitalmedicine.org/BOOST
  • The Bridge Model (Illinois Transitional Care Consortium, 2010)
  • Guided Care (Johns Hopkins, 2012)
  • GRACE (Counsell, et al., 2006)
  • Project RED (Boston University Medical Center, 2003)

GRACE Data

GRACE Data

Average Total Health Care Costs Among GRACE Intervention And Usual Care (Comparison) Patients In High-Risk Group, Years 1–3.


COLLABORATION IS
The Participants in Care:

• Patient and Caregiver
• Physician
• Nurse
• Pharmacist
• Other Ancillary Providers

Comprehensive Assessment is Vital

• Patients over 65 years of age:
  • Impaired homeostasis: difference in PD and PK
  • Wide inter-patient variability
  • Captures the complexities and helps guide therapy
  • Increased risk for ADR’s
  • Multiple comorbid disease states
  • Frailty and decreased physical functioning
  • Close need for monitoring

The Must Haves:

• Complete H&P including current DX and PMH
• Baseline Labs
• Discharge or Home-Going Med List
• Following MD as well as PCP and other Specialists
• Other clinical information including:
  • Skin Integrity
  • Nutrition and Hydration Status
• Caregiver & Patient ability to administer

White, Marguerite W., Sandra Karam, and Barbara Cowell. "Skin tears in frail elders: A practical approach to prevention: If practical preventive skin tear interventions are made in the very old geriatric population, what are the outcomes?.” Geriatric nursing 15.2 (1994): 95-99.
Skin Integrity

- **Age-related Skin Changes:**
  - Decreased thickness
  - Site-specific atrophy
  - Drug-induced (corticosteroids PO and TOP, anticoagulants)
  - Decreased pain
  - Dehydration
  - Disease related (DPN, PAD, Obesity, Renal/Hepatic Impairment, DM, Cardiac Disease)
  - Tears


White, Marguerite W., Sandra Karam, and Barbara Cowell. "Skin tears in frail elders: A practical approach to prevention: If practical preventive skin tear interventions are made in the very old geriatric population, what are the outcomes?" *Geriatric nursing* 15.2 (1994): 95-99.
Nutrition and Hydration

- Can affect the PK and PD of many drugs
- Drugs can impair nutrition
  - Nausea
  - Vomiting
- Drugs with narrow therapeutic windows
- More drugs a patient is on, increased risk of worsening status
- Drugs can reduce food intake
- Drug induced malabsorption

Ortolani, Elena. "Nutritional Status And Drug Therapy In Older Adults". Journal of Gerontology & Geriatric Research 02.02 (2013)
Considerations & Resources for the Nurse:

- INS Standards for Older Adult Patients
  - Competencies required in core areas:
    - Anatomical changes
    - Physiological changes
    - Changes in cognition
    - Changes in dexterity
    - Response to IV drug therapy
    - Interactions with caregivers and family
    - Safety and environmental considerations

- consultgeri.org
  - Core competencies include: communication, physiological & psychological age changes, pain, sin integrity, functional status, restraints and discharge planning

- Hartford Institute for Geriatric Nursing
  - Free online course entitled Common Screening in Older Adults

- AGS-American Geriatrics Society (www.americangeriatrics.org)

What the nurse can screen for:

- Skin Integrity
- Nutritional Status
- CAD
- HTN
- Depression
- Cognition
- Falls
- Vision
- Abuse
Chronic Disease in the Elderly

• NCOA Statistics
  • 10,000 baby boomers turn 65 each day
  • 92% have at least one chronic disease, 77% have at least 2
    • Top 4: Heart Disease, Cancer, Stroke, and Diabetes
  • Chronic disease accounts for 75% of the US total healthcare spend
  • Every 15 seconds an older patient is treated in an ED for a fall and every 29 minutes a fall results in death
  • 1 in 4 older adults has some mental disorder: depression, anxiety, dementia and is expected to be 15 million by 2030
    • 2/3 of these patients do not receive treatment
    • Aged 85+ has highest suicide rate and older white men 6x’s higher than general population

http://www.pewresearch.org/daily-number/baby-boomers-retire/
Hypertension and Cardiac Disease

• According to CDC data, heart disease and cancer account for nearly 50% of deaths in US

• Effectively treating can result in better outcomes if and when these patient require home infusion

• SPRINT Trial-published in September 2015
  • All participants over 50 years of age with systolic of 130-180
  • Excluded diabetics, post-stroke, dementia, HF, PKD, h/o poor compliance
  • Treat to goal of either 120 or 140
  • Found that aggressive treatment to 120 needs to have benefit vs risk analysis but more information is needed to change current practice guidelines
  • Recommended goal for patients over 60 is 150/90 based on 2013 guidelines
    • For DM and kidney disease: 140/90


### JNC 8 Recommendations

**Table 6. Guideline Comparisons of Goal BP and Initial Drug Therapy for Adults With Hypertension**

<table>
<thead>
<tr>
<th>Guideline</th>
<th>Population</th>
<th>Goal BP, mm Hg</th>
<th>Initial Drug Treatment Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014 Hypertension guideline</td>
<td>General ≥60 y</td>
<td>&lt;150/90</td>
<td>Nonblack: thiazide-type diuretic, ACEI, ARB, or CCB; black: thiazide-type diuretic or CCB</td>
</tr>
<tr>
<td></td>
<td>General &lt;60 y</td>
<td>&lt;140/90</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diabetes</td>
<td>&lt;140/90</td>
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<tr>
<td></td>
<td>CKD</td>
<td>&lt;140/90</td>
<td>ACEI or ARB</td>
</tr>
<tr>
<td>ESH/ESC 2013</td>
<td>General nonelderly</td>
<td>&lt;140/90</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General elderly &lt;80 y</td>
<td>&lt;150/90</td>
<td>Diuretic, β-blocker, CCB, ACEI, or ARB</td>
</tr>
<tr>
<td></td>
<td>General ≥80 y</td>
<td>&lt;150/90</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diabetes</td>
<td>&lt;140/85</td>
<td>ACEI or ARB</td>
</tr>
<tr>
<td></td>
<td>CKD no proteinuria</td>
<td>&lt;140/90</td>
<td>ACEI or ARB</td>
</tr>
<tr>
<td></td>
<td>CKD + proteinuria</td>
<td>&lt;130/90</td>
<td></td>
</tr>
<tr>
<td>CHEP 2013</td>
<td>General &lt;80 y</td>
<td>&lt;140/90</td>
<td>Thiazide, β-blocker (age &lt;60y), ACEI (nonblack), or ARB</td>
</tr>
<tr>
<td></td>
<td>General ≥80 y</td>
<td>&lt;150/90</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diabetes</td>
<td>&lt;130/80</td>
<td>ACEI or ARB with additional CVD risk ACEI, ARB, thiazide, or DHPCCB without additional CVD risk</td>
</tr>
<tr>
<td></td>
<td>CKD</td>
<td>&lt;140/90</td>
<td>ACEI or ARB</td>
</tr>
<tr>
<td>ADA 2013</td>
<td>Diabetes</td>
<td>&lt;140/80</td>
<td>ACEI or ARB</td>
</tr>
<tr>
<td>KDIGO 2012</td>
<td>CKD no proteinuria</td>
<td>≤140/90</td>
<td>ACEI or ARB</td>
</tr>
<tr>
<td></td>
<td>CKD + proteinuria</td>
<td>≤130/80</td>
<td></td>
</tr>
<tr>
<td>NICE 2011</td>
<td>General &lt;80 y</td>
<td>&lt;140/90</td>
<td>&lt;55 y: ACEI or ARB</td>
</tr>
<tr>
<td></td>
<td>General ≥80 y</td>
<td>&lt;150/90</td>
<td>≥55 y or black: CCB</td>
</tr>
<tr>
<td>ISHIB 2010</td>
<td>Black, lower risk</td>
<td>&lt;135/85</td>
<td>Diuretic or CCB</td>
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<tr>
<td></td>
<td>Target organ damage or CVD risk</td>
<td>&lt;130/80</td>
<td></td>
</tr>
</tbody>
</table>

*2014 Evidence-Based Guideline for the Management of High Blood Pressure in Adults: Report From the Panel Members Appointed to the Eighth Joint National Committee (JNC 8)*
Diabetes

• 2014: 25.9% >65 or 11.8 million patients
• Incidence is rising and extremely challenging to treat
• 7th leading cause of death in 2013

Considerations for the Home Infusion Diabetic Patient:

• Things to consider as a home infusion clinician:
  • Know patient history
  • Ask about blood sugars
  • Consider diluents (D5W vs. NS)
  • Medication compliance
  • Encourage diabetes education

• Medications and impact on renal & hepatic dysfunction
  • Metformin, TZD’s, DPP-4 Inhibitors
  • Statins, ACEs, Antidepressants, NSAIDs, Anti-seizure
  • The list goes on and on……

Naughton, C. Am Fam Physician. 2008 Sep 15;78(6):743-750
Renal Disease

• 3 Types: Chronic Kidney Disease (CKD), End-Stage Renal Disease (ESRD), and Acute Kidney Injury (AKI)
  • CKD rapidly growing in those over 60 years of age
  • ESRD is 3 times higher in African Americans vs. Caucasian but has leveled off since 2000
  • # of hospitalizations for AKI rose from 3,942 (1996) to 23,052 (2008)
• DM leading cause of renal failure
• AKI is on the rise in the elderly
  • Increase in co-morbid conditions
  • Co-morbid conditions requiring drug treatment and surgery
  • Age-related changes
• Most common causes of AKI
  • Glomerulonephritis (31.2%), Acute interstitial nephritis (18.6%) and Acute tubular necrosis (7.5%)

Haas, Mark et al. "Etiologies And Outcome Of Acute Renal Insufficiency In Older Adults: A Renal Biopsy Study Of 259 Cases". *American Journal of Kidney Diseases* 35.3 (2000): 433-447
http://www.niddk.nih.gov/health-information/health-statistics/Pages/kidney-disease-statistics-united-states.aspx#1
Acute Kidney Injury vs Age

Incidence of AKI per 100,000 person years

Age by Decade

American Journal of Kidney Diseases, Vol 56, No 1 (July), 2010; pp 122-131
Box 1. Changes in the Aging Kidney

- Decrease in total renal mass\textsuperscript{9}
- Glomerulosclerosis\textsuperscript{10}
- Decrease in active cortical parenchyma
- Thickening of glomerular basement membrane\textsuperscript{11}
- Mesangial expansion\textsuperscript{12}
- Decrease in amount and length of tubules\textsuperscript{9}
- Thickening of large-vessel walls\textsuperscript{12}
- Decrease in renal blood flow (10\% per decade at age >40 y)\textsuperscript{13}
- Decrease in GFR (\(-1\) mL/min/y at age >45 y)\textsuperscript{14-16}
- Blunted nitric oxide production\textsuperscript{17}
- Decreased maximum osmolality\textsuperscript{18}
- Increased susceptibility to apoptosis\textsuperscript{19}
- Decrease in renal growth factors (EGF, IGF-1, VEGF)\textsuperscript{20-22}

Abbreviations: EGF, epidermal growth factor; GFR, glomerular filtration rate; IGF-1, insulin-like growth factor 1; VEGF, vascular endothelial growth factor.

Case Study: FW (AKI)

- FW is a 69 yr old female with osteomyelitis of the left 5th toe and right foot
- Ht: 5’7” Wt: 160lb
- PMH: IDDM (poorly controlled), COPD, Depression, Peripheral Neuropathy, Hyperlipidemia, H/O CHF, CAD, recurrent skin infections of feet
- Allergies: Diflucan, Metformin, Latex
- Orders: Vanco 1gm Q12H (had been on vanco previously no issues)
- 2L PICC
- Married lives with husband, smoker
- Labs: BC, BMP, CRP, Vanco Trough
- Current Meds: Albuterol, Symbicort, Wellbutrin XL 300mg QD, Furosemide 40mg QD prn Swelling, Gabapentin 300mg BID, Lantus 10u BID, KCl 20MEq QD prn Swelling, Tramadol 50mg Q4H prn, Cyclobenzaprine 10g QHS
- Baseline labs drawn day before DC home (1/12): Vanco trough 16.2, BUN=18, sCr= 1.6 (typical for this patient 1.3-1.8)
- Patient SOC was 1/13 and first lab draw at home was 1/19
- Labs on 1/19: BUN=32, sCr=3.4, Vanco trough 54
Case Study: FW (AKI)

• Patient admitted to ICU 1/20 for acute renal insufficiency, persistent diarrhea, respiratory failure, and probable sepsis

• Patient discharged home 2/1 on IV Cefepime and Cubicin as well as now had wound vac

• Additional clinical information and history provided on subsequent start of care in the home

• What are the takeaways from this case?
Hepatic Disease

• Liver function is not typically affected by the aging process
• Chronic liver disease diagnosis is growing
• Common chronic liver diseases:
  • ALD (Alcoholic liver disease)
  • NAFLD (Non-alcoholic liver disease)
  • AIH (Autoimmune hepatitis)
  • PSC (Primary sclerosing cholangitis)
  • PBC (Primary biliary cirrhosis)
  • HEP B (Hepatitis B)
  • HEP C (Hepatitis C)
  • HCC (Hepatocellular carcinoma)

Some Medications requiring LFT’s

- Amiodarone
- Carbamazepine
- Valproic Acid
- Dronedarone
- Fluconazole
- Pioglitazone
- MTX
- Labetolol

- Carbapenems
- PN (lipids)
- SMX/TMP
- Azole antifungals
- Isoniazid
- PCN G
- TCN’s
Cognition and Aging

• September 2015 World Health Organization (WHO) Data
  • 15% of population over 60 suffer from a mental disorder
  • Dementia
    • 47.5 million worldwide projected to grow to 135.5 million in 2050

• Dementia in the US Elderly Population
  • Alzheimer’s disease (AD) is the #1 form of dementia in the US
  • 5.3 million patients all ages have Alzheimer's
  • 1 in 9 > 65 years and 32% > 85 years
  • 81% of those with AD in US are 75 years or older

AD in the US in 2015

- More women than men
- African-American and Hispanics have higher incidence than Caucasians
- Top 5 States:
  - CA: 590,000
  - FL: 500,000
  - NY: 380,000
  - TX: 340,000
  - OH & IL: 210,000

Projected Increases from 2015 to 2025

Strategies for Success for AD & HIT

- Establish a caregiver
- Determine how the patient best remembers
- Determine the best MOA
- Provide cues that will help patient remember
- Provide a check-list
- Consistent check-in between pharmacist and nurse
- Provide verbal, written, and visual education
- Involve patients in their care
- Positive reinforcement
- Psychosocial therapy

**KEY: COORDINATION OF CARE WITH ALL PROVIDERS!!!!!!!!!!!!!!**

Case Study: NT

- NT is an 83 yr old female with MRSA cellulitis
- Ht: 5’2” Wt: 142lb
- PMH: HTN, Hyperlipidemia, Colon cancer, ankle osteomyelitis, cognitive impairment; ambulation issues
- Allergies: Cipro, Sulfa
- Orders: Vanco 1 gm Q24H and Cefepime 2gm Q12H (failed PO Clinda and Cephalexin)
- SL PICC
- Lives alone with a son and daughter as additional contacts
- Current Meds: Vitamin D3 1000u QD, Oscal QD, Cyclobenzaprine 10mg TID, Denosumab (Prolia®), Etodolac 200mg Q8H prn, Furosemide 20mg QD, Gabapentin 300mg TID, Ibuprofen 200mg Q6H prn, KCL 10 mEq BID, Tramadol 50mg Q8H prn
- Labs: Weekly CBC w/DIFF, CMP, Vanco Trough
- Baseline Labs: WNL
Case Study: NT

- **Course of Treatment Highlights:**
  - 3 dose changes due to abnormal labs as well as being on 2 - IV medications
  - Stated medication made her feel “goofy”, her “legs were vibrating” and that she was being “watched” and “doesn’t know who she is”
  - Communication with daughter- “I live 200 hundred miles away, call her MD,” and son didn’t return phone calls to pharmacy

- **Problem List:**
  - Cognitive Impairment
  - Medication list & diagnoses
  - Lives alone
  - No support system or caregiver present

- What can the pharmacist and nurse do to help this patient?
Transition to End of Life Care

- Compassion and Empathy
- Provide therapies if needed
  - Pain Management
  - Hydration
- Pharmacist is a resource for patient, caregivers, and other clinicians
- Story of Bev
  - Pharmacist
  - Nurse
  - Patient
Medication Management Strategies
Medication Management Practice Guidelines

• Medication Reconciliation
• Medication Procurement
• Medication Knowledge
• Physical Ability
• Cognitive Capacity
• Intentional Nonadherence
• Ongoing Monitoring

The Caregiver

“No matter what the relationship was between the parent and child—whatever it was—this is going to be extremely challenging because it is not logical. There’s no way to deal with it rationally or directly. You don’t reason it out. What I’ve said to so many people is: we always must lead with our love.”

Dr. Stephen Hoag, interview with him on Alzheimers.net about A Son’s Handbook: Bringing Up Mom with Alzheimer’s/Dementia
The Reality of Burden

• AARP 2015 Caregiving in the U.S Report
  • 43.5 million are unpaid caregivers of adults/children
  • 1 in 10 caregivers are over the age of 75
  • 26% of these patients have memory problems
  • 23% of caregivers spend 41+ hours/week

• Family member or friends
• Can have negative impact
• Common symptoms of caregiver stress:
  • Anxiety and depression
  • Difficulty sleeping and general “run-down” feeling
  • Increase in eating smoking, drinking

• Burnout occurs

Figure 25: Main Problem or Illness Identified by Caregiver

Q18. What is/was the main problem or illness your [relation] has/had for which he/she needs/needed your care?

Base: Caregivers of Recipient Age 18+ (n=1,248)

Top Mentions

<table>
<thead>
<tr>
<th>Illness</th>
<th>Hours Caregiving per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-20 (n=826)</td>
</tr>
<tr>
<td>&quot;Old age&quot;</td>
<td>15%*</td>
</tr>
<tr>
<td>Alzheimer's/confusion</td>
<td>8</td>
</tr>
<tr>
<td>Surgery, wounds</td>
<td>8</td>
</tr>
<tr>
<td>Cancer</td>
<td>6</td>
</tr>
<tr>
<td>Mobility</td>
<td>8*</td>
</tr>
<tr>
<td>Mental/emotional illness</td>
<td>5</td>
</tr>
<tr>
<td>Heart disease</td>
<td>4</td>
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<tr>
<td>Diabetes</td>
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</tr>
<tr>
<td>Stroke</td>
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<tr>
<td>Arthritis</td>
<td>5*</td>
</tr>
<tr>
<td>Back problems</td>
<td>5</td>
</tr>
<tr>
<td>Broken bones</td>
<td>3</td>
</tr>
<tr>
<td>Feeble, falling</td>
<td>3</td>
</tr>
<tr>
<td>Lung disease</td>
<td>3</td>
</tr>
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</table>

# Resources for Caregivers

<table>
<thead>
<tr>
<th>Resource</th>
<th>Website address</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Cancer Society</td>
<td><a href="http://www.cancer.org/treatment/caregivers/index">www.cancer.org/treatment/caregivers/index</a></td>
<td>• Caregiver support</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Coping information</td>
</tr>
<tr>
<td>Cancercare</td>
<td><a href="http://www.cancercare.org/get-help/loved-one.php">www.cancercare.org/get-help/loved-one.php</a></td>
<td>• Support groups</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Education</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Workshops</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Counseling services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Financial assistance</td>
</tr>
<tr>
<td>CarePages.com</td>
<td><a href="http://www.carepages.com/">www.carepages.com/</a></td>
<td>• Free site to create video or website blog to stay connect with others</td>
</tr>
<tr>
<td>CARING BRIDGE</td>
<td><a href="http://www.CARINGBRIDGE.org">www.CARINGBRIDGE.org</a></td>
<td>• Free site to stay connected with friends and family while undergoing health challenges</td>
</tr>
<tr>
<td>Family Caregiving Alliance</td>
<td><a href="http://www.caregiver.org">www.caregiver.org</a></td>
<td>• Information, education, links to services, research and advocacy for caregivers</td>
</tr>
<tr>
<td>The Leukemia &amp; Lymphoma Society</td>
<td><a href="http://www.lls.org/#/diseaseinformation/fecaregivers/">http://www.lls.org/#/diseaseinformation/fecaregivers/</a></td>
<td>• Educational resources specific for cancer caregivers</td>
</tr>
<tr>
<td>National Alliance for Caregiving</td>
<td><a href="http://www.caregiving.org/">http://www.caregiving.org/</a></td>
<td>• Conduct research and develop national programs to increase the awareness of caregiving in the U.S.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Educational resources, webcasts and conferences on caregiving</td>
</tr>
<tr>
<td>National Caregiving Foundation</td>
<td><a href="http://www.caregivingfoundation.org/">www.caregivingfoundation.org/</a></td>
<td>• Links to caregiving resources</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Free caregiver support kit</td>
</tr>
<tr>
<td>National Family Caregivers Association</td>
<td><a href="http://www.nfcacares.org">www.nfcacares.org</a></td>
<td>• Educational and support</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Empowering caregivers</td>
</tr>
<tr>
<td>NIH Medline Plus</td>
<td><a href="http://www.nlm.nih.gov/medlineplus/caregivers.html">www.nlm.nih.gov/medlineplus/caregivers.html</a></td>
<td>• Educational resources (English &amp; Spanish)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Links to research</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Health information and care tips for the caregiver</td>
</tr>
<tr>
<td>The National Cancer Institute</td>
<td><a href="http://www.cancer.gov/cancertopics/coping/familyfriends">www.cancer.gov/cancertopics/coping/familyfriends</a></td>
<td>• Support for caregivers</td>
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<td>• Resources for children and teens with family members diagnosed with cancer</td>
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<td>• Resources to prepare for end-of-life</td>
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Key Takeaways to Consider......

- People are getting older and living longer, understanding this population will be vital to successful outcomes and provides great opportunity for the home infusion industry
- Early identification of the need for home infusion for the geriatric patient is crucial to continuity of care
- Clinicians need to understand the complexities and uniqueness of each patient over 65 years of age and be flexible and adaptable to needs both pharmacologically and emotionally
- Chronic diseases can impact the course of home infusion treatment in this patient population
- Caregiver burden and burnout is real and we can play a role in supporting these individuals
- Collaboration and teamwork is vital for management of the geriatric home infusion patient
Thank You!!!!!!