addressing Special Needs of Patients

Cris DuVall, PharmD
Pharmacy Manager, Friday Harbor Drug
cristina@ahstores.com

DISCLOSURE

• Presenter has no actual or potential conflict of interest in relation to this presentation.
• Presenter will not promote off-label and/or investigational use of medications.

Objectives

At the end of this presentation pharmacists and technicians will be able to:
• Identify common special needs presented in pharmacy patients
• List possible accommodations applicable to improve patient safety and communication
• Describe cultural nuances among patients with different abilities
significance

Some type of disability (e.g., difficulty in hearing, vision, cognition, ambulation, self-care, or independent living) was reported by what percentage of adults aged 65 and over in 2012?

A. 26%
B. 36%
C. 46%
D. 56%

Source: Administration on Aging, 2012; Center for Disease Control and Prevention, 2012; National Council on Aging, 2014

Cultural Differences

• Differently abled
  • Heightened sense and awareness
  • Independent
  • Person with condition
    • Assuming accommodations and personality
    • Productive
  • Sub culture
    • Respect differences
    • Proud—not afflicted or contagious

Willing volunteers?
A simple task
Definitions

**Impairment** - any loss or abnormality in an anatomical structure or a physiological or psychological function

**Disability** - any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being

Source: World Health Organization (WHO)

Visual

**Types of visual impairment**
- Low visual acuity - vision between 20/70 and 20/400 with the best possible correction, or a visual field of 20 degrees or less
- Blindness - visual acuity worse than 20/400 with the best possible correction, or a visual field of 10 degrees or less
- Legal blindness in the US - visual acuity of 20/200 or worse with the best possible correction, or a visual field of 20 degrees or less.

Sources:
Visual impairment in glaucoma
• due to the rise of normal fluid pressure inside the eyes
• type of vision is usually like a tunnel
• intact vision remains in the center, peripheral vision decreases, then the tunnel reduces until total vision is lost if left uncorrected
• treatments: prostaglandin analogs (i.e. latanoprost), Beta-blockers (i.e. betaxolol) carbonic anhydrase inhibitors (i.e. dorzolamide), sympathomimetics (i.e. brimonidine), open microscopic surgery, laser corrections, etc.

Age-Related Macular Degeneration (AMD)
• dry (atrophic) or wet (neovascular or exudative)
• wooly or cottony opacity obscures the central part of vision
• peripheries may be normally seen
• usually blurs the sharp, central vision that is needed for closely viewed activities like reading, sewing, and driving
• painless condition
• treatments: implantable miniature telescope, monthly anti-VEGF injections into eye (e.g. Avastin), Visudyne drug treatment (Photodynamic Therapy or PDT)

Cataracts
• general clouding, blurring of vision until it is totally lost
• other symptoms include photophobia, diplopia, etc.
• very common in older people
• treatments: corrective lenses, intraocular lens replacement
Diabetic Retinopathy
• diabetes leads to damage of the smaller arteries and blood vessels at the back of the eyes over the retina
• most common diabetic eye disease and a leading cause of blindness in adults
• impairment begins as black spots or floating shapes in the field of vision leading to complete vision loss if untreated
• treatments: control blood sugars, focal laser treatment (photocoagulation), panretinal photocoagulation (scatter laser treatment), vitrectomy

Presbyopia
• age-related farsightedness
• blurred near vision when reading, sewing or working at the computer
• usually occurs beginning at around age 40 due to gradual thickening and loss of flexibility of the natural lens
• treatments: corrective lenses, conductive keratoplasty, laser-assisted in-situ keratomileusis (LASIK), laser-assisted subepithelial keratectomy (LASEK), photorefractive keratectomy, lens implants, corneal inlays

Accommodations
corrective lenses, magnification
tactile aids, Braille
large, block print
color, shading, contrast
electronic readers

Photos courtesy of amazon.com
Conductive Loss
• sound is not conducted efficiently through the outer ear canal to the eardrum and the ossicles
• usually involves a reduction in sound level or the ability to hear faint sounds
• Some possible causes of conductive hearing loss:
  • Fluid in the middle ear from colds
  • Ear infection (otitis media)
  • Swimmer's ear (otitis externa)
  • Presence of a foreign body
  • Poor ear canal function
  • Presence of a foreign body
  • Perforated eardrum
  • Benign tumors
  • Exposure to loud noise
  • Malformation of the outer ear, ear canal, or middle ear

Sensorineural Hearing Loss (SNHL)
• Occurs when damage to cochlea or to the nerve pathways from the inner ear to the brain.
• Most common type of permanent hearing loss
• SNHL reduces the ability to hear faint sounds
• Some possible causes of SNHL:
  • Illnesses
  • Drugs that are toxic to hearing (AMG, platinum)
  • Hearing loss (genetic or hereditary)
  • Aging
  • Trauma
  • Malformation of the inner ear
  • Exposure to loud noise
  • Not usually medically or surgically corrected

Source: American Speech Language Hearing Association (ASHA)

How we hear
• Sound travels down the ear canal, striking the eardrum and causing it to vibrate
• Vibrations from the eardrum cause the ossicles to vibrate which, in turn, creates movement of the fluid in the inner ear.
• Movement of the fluid in the cochlea, causes changes in hair cells that send electric signals from the inner ear up the auditory nerve to the brain. The brain then interprets these electrical signals as sound.
Hearing

Technology
- Conductive - Hearing Aids
  - conventional analog, programmable analog, digital
- Sensorineural - cochlear implant
  - Have severe to profound hearing loss in both ears
  - Have had limited benefit from hearing aids
  - Have no other medical problems that would make the surgery risky

Accommodations
- Assisted-Listening Devices
- Amplifiers/Microphones
- Vibrating Pagers/Alarms
- Flashing Alarms
- Video Relay Service
- Text/Email/Print

Photos courtesy of amazon.com

SPEECH/Language
The Individuals with Disabilities Education Act (IDEA) officially defines speech and language impairments as "a communication disorder such as stuttering, impaired articulation, a language impairment, or a voice impairment that adversely affects a child's educational performance."
- fluency disorder
- pronunciation
- comprehension (written/spoken)
- expression
SPEECH/Language

What can you do?

- Don’t interrupt, listen patiently
- Summarize, repeat
- Write, draw
- Use interpreter or translation software
- Learn their language
- Avoid complex sentence structures
- Print pictograms

Communication Aids

- US Pharmacopeial Convention pictograms
  www.usp.org
- International Pharmaceutical Federation (FIP) pictogram software
  www.fip.org

Mental/Cognitive

Mental impairment - a mental or psychological disorder. Examples:

- Mental retardation
- Emotional or mental illness
- Organic brain syndrome (decreased mental function due to medical disease other than psychiatric illness)

Sources:
ADA Tool Kit http://www.ada.gov/pca/toolkit/chap1/toolkit.htm#Anchor-11481
US National Library of Medicine
Mental/Cognitive

• What can you do?
  • Don’t interrupt or patronize
  • Summarize, repeat
  • Write, draw
  • Use their language
  • Avoid complex sentence structures
  • Print pictograms

Mental/Cognitive

Accommodations
  • Pill organizers
  • Alarms/Alerts
  • Stickers on Calendars
  • Timer Caps
  • Automated Dispensers
  • Color Coding
  • Apps & Texts
  • Written instructions

Photos courtesy of amazon.com

Physical/mobility

physical impairment - a physiological disorder or condition, cosmetic disfigurement or anatomical loss impacting one or more body systems.

• neurological
• musculoskeletal
• respiratory
• cardiovascular
• digestive
• lymphatic
• endocrine

Source: ADA Tool Kit
http://www.ada.gov/pca toolkit/chap1toolkit.html#Anchor-11481
Physical/mobility Accommodations

- ergonomic grips, levers
- ramps, platforms
- slip-resistant surfaces
- weights, magnets
- reachers, grabbers
- straps, braces
- guides, templates
- swallow aids

Photos courtesy of amazon.com

Other

What accommodations can we offer?

- contagious and noncontagious diseases
- orthopedic, vision, speech and hearing impairments
- cerebral palsy
- epilepsy
- muscular dystrophy
- multiple sclerosis
- cancer
- heart disease
- diabetes
- specific learning disabilities
- HIV disease (with or without symptoms)
- tuberculosis
- drug addiction
- alcoholism

Source: ADA Tool Kit
http://www.ada.gov/pctoolkit/chap1toolkit.htm#Anchor-11481

Summary

At the end of this presentation pharmacists and technicians will be able to:

- Identify common special needs presented in pharmacy patients
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Questions?

I can no other answer make but thanks, and thanks; and ever thanks.

— William Shakespeare
(The Weight of a Heart, Act 2, Scene 3)