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If you help older people, you are going to hear a lot about medical conditions. It's useful to understand the terms and which types of doctor treat which conditions. You already know that many conditions improve with exercise, proper nutrition, and sleep, so I'm not going to tell you that here. In this article, I focus on what you need to know to help your clients. As a physician who is a personal patient advocate, I would like to help you help your clients.

The conditions I've chosen to include were picked because they are areas that are commonly confused and misunderstood. This article is not intended to replace medical advice.

Blood Pressure

High blood pressure is also known as hypertension and is abbreviated "htn" in medical notes. Inadequately treated (or poorly "controlled") hypertension elevates the risk of heart disease (Frohlich et al., 1992), stroke, and dementia (Faraco & Iadecola, 2013). Hypertension is a very common condition, and there are multiple classes of drugs that can treat it. There are no symptoms, which is why it's a good idea to have blood pressure checked regularly.

Some of the drugs that treat hyp*er*tension can cause significant side effects in older people, including falls (Cai & Calhoun, 2018) and confusion (Marvanova, 2016). These side effects are important for older adults to discuss with their doctors because there is a tradeoff between tight blood pressure control and quality of life. Especially when prompted by the patient or advocate, many physicians will work with elders to help find the right balance between the ideal blood pressure numbers and the drug side effects. Sometimes the modest risk of slightly elevated blood pressure is worth the trade-off.

Low blood pressure is also a problem for some people. Orthostatic hyp*o*tension (that is, position-change-related blood pressure drop) causes dizziness with standing. A common cause of orthostatic

hypotension is medication side effects (there we go again), but other causes should be ruled out by a cardiologist or neurologist (Figueroa et al., 2010).

Arthritis

Arthritis is pain and inflammation in the joints. There are multiple types of arthritis. Osteoarthritis, abbreviated OA, is very common and known as "wear and tear" arthritis. The cartilage (which acts as a bony cushion) can break down over time, and the bones themselves can develop thickening at the end with bony growths known as spurs or nodes. The range of motion of the joint may decrease. A person with osteoarthritis experiences pain and stiffness in their joints. This may be worse first thing in the morning or following more vigorous activity than usual. The joints may be enlarged from extra bone (called bony hypertrophy).

When osteoarthritis occurs in the knees or hips, it is often treated with joint injections for pain. When the person's symptoms become bothersome enough that they are willing to have surgery, the joint is replaced. If a doctor tells your client that their X-ray shows "bone on bone" or "loss of joint space," it's quite possible that they may be offered a joint replacement at some point.

When osteoarthritis occurs in the neck or back, the bony gaps where the nerves leave the spinal cord can become narrow. With or without the added problem of disc herniation, the nerves can become pinched and inflamed, causing radiating pain, numbness, and/or weakness in the arm or leg. These symptoms from a nerve compressed at the start where it leaves the spine are called a "radiculopathy." Many radiculopathies will resolve on their own, but some people will need surgery. Low back pain may or may not be from osteoarthritis. Low back pain comes from many causes, and a detailed discussion of low back pain is beyond the scope of this article.

There are several types of inflammatory arthritis, most commonly gout, rheumatic diseases, or infection. Inflamed joints can become swollen, hot, and very painful. Sometimes a joint with osteoarthritis can also become swollen and somewhat inflamed, but osteoarthritis rarely causes what is sometimes called "angry" joint swelling.

The doctor may want to remove the fluid with a needle and send the joint fluid to the lab. The lab will run tests to chemically characterize the fluid as well as look at the fluid under the microscope. The pattern of chemicals and crystals in the joint fluid is then used to determine the type of arthritis in order for the right treatment to be prescribed. Fortunately, taking out the fluid typically provides pain relief.

Diabetes

Diabetes is another common problem and a bigger deal than most people realize, in this author's opinion. Diabetes, like high blood pressure, is mostly silent. In diabetes, a person's blood sugar is too high too frequently. Over time, high blood sugar can damage nerves, vision, heart, kidneys, and blood vessels. The damage to blood vessels causes problems with healing, which can lead to limb amputation.

Insulin is a hormone made by the pancreas that tells the cells of the body to take in glucose (a.k.a. sugar). If there isn't enough insulin, or the cells don't pay adequate attention to the insulin (known as "insulin resistance"), more of the glucose remains in the bloodstream. High bloodstream levels of glucose cause damage to many parts of the body.

There are two types of diabetes, creatively named type 1 and type 2 diabetes. In type 1, the body is not able to make enough insulin, typically because of an immune response resulting in the destruction of the cells that make insulin in the pancreas. In type 2, which affects most diabetics, the cells of the body have become insulin resistant and therefore do not take up the glucose from the bloodstream. This causes blood levels of sugar to rise. Type 2 diabetics may or may not make enough insulin.

Type 1 diabetes, the less common kind, used to be called juvenile diabetes, until people realized that it's not only children who get it. Type 1 diabetes can show up very suddenly as unexpected weight loss and excessive thirst or urination. Type 2 diabetes used to be known as adult-onset diabetes, until people realized that children could get it. Type 2 is more common in older adults, but with the increase in the number of children with obesity, we are seeing more cases of type 2 diabetes in children. Type 2 is treated with diet, exercise, and medication including insulin. Managing it involves changing lifelong food habits, something many people hate doing. Many people need ongoing support to make better food and activity choices.

Primary care providers help patients manage their diabetes, but when blood sugars are poorly controlled, a specialist may be needed. Endocrinologists, specifically diabetologists, are the go-to doctors for people who need more medical management to get their blood sugar under control.

Dementia

Alzheimer's disease and other dementias, while seen more often in older people, are in fact diseases, not simply old age. Dementia is not inevitable. Alzheimer's is the most common type of dementia (Alzheimer's Research UK, 2018), and there are other

causes of dementia such as vascular dementia, frontotemporal dementia (FTD), Parkinson's, and Lewy body dementia.

In dementia, memory and problem-solving become significantly impaired. At the beginning of a disease that causes dementia, a person may be given the diagnosis of mild cognitive impairment (MCI). Mild cognitive impairment may or may not progress to a specific type of dementia. Over time, specific symptoms may appear that help differentiate the type of dementia. For example, hallucinations, while possible in Alzheimer's dementia, are seen more commonly in Lewy body dementia and Parkinson's dementia (Onofrj et al., 2012).

The potential market for effective dementia medications is huge, although currently most dementia is treated via supportive care. Drugs targeting amyloid buildup (thought to be a cause of Alzheimer's disease) have struggled to show significant clinical improvement. There are several new drugs in development for Alzheimer's dementia.

Hearing Loss

Hearing loss increases with age (Huang & Tang, 2010). As with diabetes, the impact of hearing loss is often underestimated. Those with hearing loss can become more socially isolated. Under-corrected hearing loss has been linked to depression (Kirkwood, 1999) and dementia (Cleveland Clinic, 2022). Many people don't realize that if hearing loss is under-corrected for a long time, it will no longer be correctable (Tremblay et al., 2003). The body loses the neurological ability to hear, even when sound is amplified.

Audiologists perform hearing testing. They also help with hearing aid selection, fit, and comfort. Most importantly, they adjust the sound frequency amplification for the individual so that the sound is useful, rather than just a bunch of loud white noise.

People can fail to correct their hearing because of comfort, expense, or vanity. This author has been wearing hearing aids since her early 50s when she developed "age-related hearing loss." Eye roll, please. If I can do it, so can you and your clients.

Body Composition and Polypharmacy

Polypharmacy is the term used when someone is on five or more medications (Varghese et al., 2022). When someone takes five or more medications, the chances of an adverse drug event (side effect or negative drug interaction) is 50% (Parulekar & Rogers, 2018). Adverse drug events are estimated to account for five to 28% of acute hospital geriatric medical admissions (Varghese et al., 2022).

Body composition affects how people metabolize multiple drugs. As we age, we lose muscle mass and gain fat. Our organs don't function as robustly. The result is not simply the need for a new wardrobe. With age, our ability to metabolize (break down and excrete) drugs changes significantly. As a result, an effective dosage of medication is often lower in an older person (Ruscin & Linnebur, 2021). The medication may circulate for a longer time in the body, providing more opportunities for adverse drug interactions.

Unfortunately, as people age, they may take more medications for their accumulating conditions. Sometimes these medications are renewed over and over again without evaluating whether the person's age and goals warrant continuing each medication.

Keep in mind that supplements are forms of medication and should be included in any evaluation of a person's medications. I had a client who was taking two supplements composed of a variety of different vitamins and minerals (marketed for different purposes), as well as a separate vitamin D pill. All three medications contained vitamin D! Unlike vitamin C, which is water soluble, vitamin D is fat soluble, so it is possible to take too much vitamin D. I urge anyone who is helping an older adult on five or more drugs to work with someone to evaluate the doses, interactions, and side effects of the medications.

Bladder Problems

Urinary urgency, incontinence (lack of control), and infections are common problems for older people. Your clients may be experiencing these issues and feel very reluctant to talk about them. People can experience shame and embarrassment when they can't fully control their bladder. While the plumbing is different between the sexes, the emotional reaction to incontinence is often the same.

Bladder symptoms such as urgency can lead to falls when people rush to the bathroom and trip over Fluffy. Unless you ask, you might only hear about their dog being in the way, and not the underlying bladder problem. When a person is not confident that they can control their bladder in a setting outside of their home, they may decline social invitations. A lack of interest in previously pleasurable activities may not be from actual disinterest, lack of energy, or depression. Social isolation can result.

When you are encouraging someone to get further diagnostic work and treatment for bladder problems, primary care providers are a good place to start. A visit to a urologist or a urogynecologist may be helpful. Urogynecologists are particularly sensitive to bladder incontinence that results from pelvic organ prolapse

and other conditions that occur in older women.

Many traditional bladder medications have undesirable side effects such as confusion or urinary retention when taken by older people in combination with other medications. Fortunately, there are some newer, better-tolerated options.

Depression

Like dementia, depression is not a normal consequence of aging (Centers for Disease Control and Prevention, 2022). It should not be confused with grief, which is a normal response to life losses. A common misunderstanding is an expectation that a person with depression will seem sad. While some depressed people do have sad moods, others have irritability and/or a loss of interest in previously enjoyable activities. Difficulty with sleep or eating (too much or too little of either) can also be experienced by a person with depression.

Fortunately, depression treatment has come a long way. Both talk therapy and medication can greatly improve a person's quality of life.

Heart Disease

Heart disease comes in many forms and is treated by cardiologists. There is a confusing array of cardiac sub-specialists as well. Although it's a simplification, it's handy to think of heart disease as divided into the following categories: electrical, plumbing, and mechanical.

The electrical system in the heart carries the messages to the heart cells that tell the heart how to contract in a coordinated way. When this gets out of whack, the heart rhythm will be affected. The heartbeat might be too slow or fast or the heart might contract in an abnormal pattern. A normal heart rhythm is called a "normal sinus rhythm" or NSR. The specialists for heart rhythm issues are known as electrophysiology cardiologists (EP). They perform procedures to fix the underlying rhythm problem, including zapping overactive cells (called ablation) or implanting pacemakers (that tell the heart to beat at the right rate) or defibrillators (that provide shocks to get the heart out of a dangerous rhythm).

The plumbing system in the heart is made up of the blood vessels that bring oxygen and nutrition to heart muscle cells. These blood vessels can clog, causing reduced blood flow to the heart muscle cells. Interventional cardiologists evaluate for blockages in the blood vessels that supply the heart. When sections of the blood vessels are blocked, the blood vessels may be opened back up by inserting a balloon and possibly a stent (scaffolding that stays in place). This procedure is known as coronary angioplasty, abbreviated PCI (for percutaneous coronary intervention). Angioplasty is also commonly known as PTCA (for percutaneous transluminal coronary angioplasty). After the coronary arteries are opened up blood can flow without obstruction to supply the heart muscle.

When the vessel can't be adequately opened and the blockage is severe, the clogged-up parts of the old blood vessel are bypassed using a new blood vessel that is grafted into place. This new blood vessel allows blood to flow through. The procedure is known as a CABG (sounds like the vegetable), which stands for "coronary artery bypass graft."

Hearts can also have structural (mechanical) problems. The heart muscle may not squeeze well, or the valves may not function properly. These valves are called "incompetent," meaning leaky, and therefore not good at their jobs. There have been significant advances in valve replacements, and now 90-year-olds are having TAVRs: transcatheter aortic valve replacements (Galatas & Afilalo, 2020).

Cardiac surgeons perform CABGs and other big cardiac repairs that can't be done through a catheter. Procedures that can be done through a catheter such as stent placement are done by interventional cardiologists.

In heart failure, not enough blood is pumped out with every beat. This is typically treated with medication, except in severe cases. Some cardiologists are heart failure specialists.

Every field has its own language. While it can seem intimidating to learn "doctor speak," it is doable. I encourage you to learn the language of medicine. The more comfortably you speak, the more you will be able to help your clients. •CSA



Dr. Gerda Maissel is a physician and former health system leader who brings a unique perspective to personal patient advocacy. She specializes in guiding people with complex medical problems through their stays in the hospital or rehabilitation facility. Dr. Maissel is a Board Certified Patient Advocate (BPCA), Board Certified Physical Medicine and Rehabilitation physician, and a Certified Physician Executive. Read more about her at mymdadvisor.com or subscribe to her blog by emailing a request to support@mymdadvisor.com.

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