New Hypertension Guidelines (JNC 8)

The Joint National Committee (JNC) is a group of experts from various fields including cardiology, nephrology, primary care, geriatrics, nursing, pharmacology and others that review current clinical studies to develop new HTN guidelines and then submit their findings for external review by multiple reviewers prior to finalizing the report.

Why the need for new guidelines?
Hypertension is the most common condition seen in primary care and leads to myocardial infarction, stroke, renal failure, and death if not detected early and treated appropriately. It had been over 10 years since the previous guidelines were published (JNC 7) and multiple new clinical trials had been completed that might clarify the best treatment for hypertension. The new guidelines differ from JNC 7 in some important ways. JNC 8 takes a rigorous, evidence-based approach to recommend when to treat, goals of treatment, and medications in the management of hypertension in adults. Evidence was drawn only from randomized controlled trials (RCTs), which represent the gold standard for determining efficacy and effectiveness. Only trials that met specific qualifications were reviewed. Studies had to be large enough and long enough with evaluation of outcomes for mortality or specific morbidity such as myocardial infarction, stoke, heart failure, kidney failure, etc.

Previous guidelines did not make a systematic review of clinical trials and their outcomes. According to JNC-8, a patient’s goal BP is determined by age and presence of diabetes and/or CKD. Otherwise healthy patients older than 60 years of age should now strive for a SBP less than 150 mm Hg and a DBP less than 90 mm Hg. All other hypertensive patients are urged to aim for systolic and diastolic blood pressures less than 140 mm Hg and 90 mm Hg, respectively. Also quite different from the previous guidelines are the recommendations for initiating antihypertensive therapy in new patients. JNC-7 guidelines recommended thiazide-type diuretics as first line treatment for patients without compelling indications for another drug class, but JNC-8 suggests there are four reasonable options for initiation of therapy. New guidelines recommend that healthcare providers choose an initial drug class (ACE, ARB, CCB, or thiazide diuretic) based upon patient characteristics, such as age and concomitant chronic diseases.

JNC 8 provides nine recommendations for the management of hypertension.

Recommendation 1:
In the general population aged 60 years or older, initiate pharmacologic treatment to lower BP at systolic blood pressure (SBP) of 150 mm Hg or higher or diastolic blood pressure (DBP) of 90 mm Hg or higher and treat to a goal SBP lower than 150 mm Hg and goal DBP lower than 90 mm Hg. This recommendation is based on good evidence in RCTs that

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Alternative Treatments for Depression

Depression is a serious and prevalent disease that affects 10 to 14 million Americans of all ages. Nearly 5 million of the 31 million Americans who are ≥65 years are clinically depressed, and 1 million have major depression. Recurrence may be as high as 40%. Although they comprise only 12% of the U.S. population, people age ≥65 years accounted for 16% of suicide deaths in 2004, and 63% of the elderly who committed suicide were white men. Non-Hispanic white men age ≥85 years were most likely to die by suicide and have the highest suicide rate in the United States.

Depressive illnesses are disorders of the brain, in particular imbalance of neurotransmitters used for brain cell communication. Depression is caused by a combination of genetic, biological, environmental, and psychological factors. Some of the risk factors for depression in the elderly are a history of depression, chronic medical illness, female sex, being single or divorced, brain disease, alcohol abuse, use of certain medications, and stressful life events. Depression can also be caused by the medications that the patient is taking. Up to 15% of widowed adults have potentially serious depression for a year or longer after the death of a spouse.

Depression in elderly persons is widespread, often undiagnosed, and usually untreated; however, depression is not a normal part of aging. Studies show that most elders feel satisfied with their lives, despite having more comorbidities or physical problems. Elderly patients may not exhibit the typical symptoms of depression, including sadness and grief. They often show unexplained somatic complaints and a sense of hopelessness, anxiety, and anhedonia. Other symptoms of underlying depression could be slowness of movement and lack of interest in personal hygiene.

S-adenosyl methionine (SAM-e)

SAMe is a chemical that is found naturally in the body, with particularly high concentrations in the liver, adrenal glands, and pineal gland. SAMe is synthesized from the amino acid L-methionine through a metabolic pathway called the one-carbon cycle, which relies, in part, on adequate concentrations of the vitamins folate and B-12. It plays a role in the immune system, maintains cell membranes, and is required for the synthesis of serotonin, dopamine, and norepinephrine.

SAMe is well tolerated and relatively free of adverse effects. Thus, SAMe may be especially useful in patients who experience side effects from conventional antidepressants. Increased anxiety, mania, or hypomania have been reported in patients with bipolar depression; therefore, patients with a history of bipolar disorder should be advised not to take SAMe unless they are also taking a mood stabilizer.

SAMe is used for depression, anxiety, heart disease, fibromyalgia, osteoarthritis, bursitis, tendonitis, chronic lower back pain, dementia, Alzheimer's disease, slowing the aging process, chronic fatigue syndrome (CFS), improving intellectual performance, liver disease, and Parkinson's disease. It is also used for attention deficit-hyperactivity disorder (ADHD), multiple sclerosis, spinal cord injury, seizures, migraine headache, and lead poisoning. Some of SAMe's uses are explained below:

Cognitive deficits: Reports suggest that SAMe is effective in treating cognitive deficits seen in dementia. Decreased folate and vitamin B-12 and decreased membrane fluidity were found in patients with Alzheimer’s disease, and SAMe may protect against these deleterious effects.

Osteoarthritis: Various studies have asserted the effect of SAMe in reducing joint pain and inflammation, and promoting cartilage repair, although the mechanism of action is not clear.

Fibromyalgia: Studies have shown SAMe to be effective in reducing symptoms of fibromyalgia - including pain, fatigue, morning stiffness, and depressed mood.

Liver Disease: A study [Mato et al. 1999], of 123 men and women with alcoholic liver cirrhosis found that SAMe treatment for 2 years improved survival rates and delayed the need for liver transplants better than placebo. SAMe’s relation to mood is suggested by several lines of evidence. For example, low levels of SAMe have been reported in the cerebrospinal fluid of severely depressed patients. Conversely, there is a positive correlation between an increase in plasma SAMe concentrations and an improvement in depressive symptoms.

Some research suggests that SAMe is more effective than placebo in treating mild-to-moderate depression and is just as effective as antidepressant medications without the side effects (headaches, sleeplessness, and sexual dysfunction). SAMe may have a faster onset of action than do conventional antidepressants and may potentiate the effect of tricyclic antidepressants. In addition, antidepressants tend to take 6 - 8 weeks to begin working, while SAMe seems to begin more quickly. It is not known clearly how SAMe works to alleviate depression, but it is speculated that it might increase the amount of seroto-
nin in the brain. A small number of clinical trials with parenteral or oral SAMe have shown that, at doses of 200–1600 mg/d, SAMe is superior to placebo and as effective as tricyclic antidepressants in alleviating depression, although some individuals may require higher doses.

In the first randomized, double-blind, placebo-controlled trial, oral SAMe was evaluated for efficacy, safety, and tolerability as adjunctive therapy for patients with major depressive disorder who were antidepressant non-responders. Significantly more patients treated with adjunctive SAMe experienced clinical response and remission during the course of the study. Response rates for SAMe-treated patients versus placebo-treated patients were 36.1% versus 17.6%, respectively, while remission rates were 25.8% versus 11.7%, respectively. There were no reports of serotonin syndrome when combining SAMe and serotonin reuptake inhibitors, which had been previously reported in the literature. In addition, adjunctive SAMe was found to be relatively well tolerated compared with other antidepressants.

Starting with a low dose (for example, 200 mg per day) and increasing slowly helps avoid stomach upset. Large doses of SAMe may cause mania, thus it is recommended to start at a low dose and gradually increase it. People with bipolar disorder (manic depression) should not take SAMe since it may worsen manic episodes. Clinicians also recommend taking oral SAMe with vitamin B12 and folic acid to enhance absorption. SAMe may interact with antidepressant medications, increasing the potential for side effects including headache, irregular or accelerated heart rate, anxiety, and restlessness, as well as the potential fatal condition called Serotonin Syndrome.

Rhodiola rosea

Rhodiola rosea, commonly known as "rose root," or "golden root" is a plant native to Northern Europe and Asia. It is also called 'adaptogen', meaning that it helps the body cope with stress.

The first randomized, double-blind, and placebo controlled study (Darbinyan et al., 2007) confirms the potential antidepressive effects of R. rosea as mono-therapy. This trial showed that the standardized extract SHR-5 from R. rosea possesses a clear and significant anti-depressive activity in patients suffering from mild to moderate depression. The scores obtained by subjects in groups A and B after 42 days of treatment with SHR-5 indicated the presence of significantly reduced total levels of symptoms. Statistically significant improvements were shown in the subjects of both treatment groups, but not of the placebo group.

At a dose of 340 mg of SHR-5 extract daily over a 6-week period, statistical significant reduction in the overall symptom level of depression as well as a reduction in specific symptoms of depression such as insomnia, emotional instability and somatization were observed. There were no side-effects from treatment with SHR-5 seen in any of the groups. A previous study showed that when an extract of R. rosea was combined with tricyclic antidepressants there was a marked reduction in antidepressant side effects and an improvement of depression symptoms.

While it is not entirely understood how R. rosea might ease depression, a 2009 trial found that it is a potent inhibitor of monoamine oxidase A and B. When the activity of these two receptors is blocked, neurotransmitters - such as serotonin, norepinephrine and dopamine - cannot be broken down, causing more of them to become available.

There are three main benefits of Rhodiola rosea that have been verified by previous studies. It has been shown to give generalized resistance against physical, chemical and biological stressors and to produce antidepressant activity both in animals and humans, and has been proposed as a remedy for asthenic or lethargic conditions. R. rosea appears to have an excellent safety profile. Side effects are uncommon and mild, and can include allergy, irritability, insomnia, fatigue, and unpleasant sensations especially at high doses. It does not show significant interactions with other medications such as warfarin and theophylline, and can be of value in patients who take multiple medications.

There was no data available concerning efficacy, safety and pharmacological interaction of R. rosea used in combination with SSRIs or SNRIs. Nonetheless, the concomitant use of R. rosea and tricyclic antidepressants has been described to have a favorable effect.

St. John’s Wort

St. John’s Wort (Hypericum perforatum) is a widely used herbal remedy for depression, sometimes used in an attempt to avoid adverse effects associated with prescription antidepressants. However, scientific evidence of efficacy is inconsistent. Extracts of hypericum perforatum are widely used to treat depression. Systematic reviews published between 1996 and 2000 concluded that such extracts are more effective than placebo and are comparable with older antidepressants in the treatment of mild to moderate depression.

In an updated meta-analysis, it was discovered that St. John’s wort extracts improved symptoms of depression more than placebo and are comparable with standard antidepressants in adults with mild to moderate depression. Hypericum extracts caused fewer adverse effects than older antidepressants, and might have caused slightly fewer adverse effects than SSRIs. St. John’s Wort has demonstrated Cytochrome P450-related interactions with several drugs including warfarin, theophylline, cyclosporine, digoxin, anti-HIV drugs and oral contraceptives. Thus patients need to notify their physician and pharmacist before starting St. John’s wort.

Omega-3 fatty acids, folic acid (vitamin B9), phenylalanine, dehydroepiandrosterone (DHEA), saffron, and valerian root are also used to help with depression symptoms and improve mood. Patients have to be aware of the side effects of these supplements and ask their pharmacist for guidance before initiating therapy.
treating high BP at a goal of lower than 150/90 reduces stroke, heart failure and coronary heart disease. RCTs were not consistent at showing a benefit from additional lowering of SBP to 140, although treatment was well tolerated. Therefore, some panel members recommended continuing the JNC 7 SBP goal of lower than 140 mm Hg for individuals older than 60 based on expert opinion. They felt the evidence was insufficient to raise the SBP target to <150 mg Hg in high-risk groups, such as black persons, those with CVD including stroke, and those with multiple risk factors. It was agreed that more research is needed to identify optimal goals for SBP.

Related recommendation:
In the general population aged 60 years or older, if pharmacologic treatment for high BP results in lower achieved SBP (for example, <140 mm Hg) and treatment is not associated with adverse effects on health or quality of life, treatment does not need to be adjusted.

Recommendation 2:
In the general population younger than 60 years, initiate pharmacologic treatment to lower BP at DBP of 90 mm Hg or higher and treat to a goal DBP of lower than 90 mm Hg. Initiation of antihypertensive treatment at a DBP threshold of 90 mm Hg or higher and treatment to a DBP goal of lower than 90 mm Hg reduces cerebrovascular events, heart failure, and overall mortality. RCT data showed that there was no benefit of treating DBP to goal of 80 or 85 mm Hg compared to 90 mm Hg.

Recommendation 3:
In the general population younger than 60 years, initiate pharmacologic treatment to lower BP at SBP of 140 mm Hg or higher and treat to a goal SBP of lower than 140 mm Hg. This recommendation is based on expert opinion only, not RTC, as the panel found insufficient evidence from good- or fair-quality RCTs to support a specific SBP threshold or goal for persons younger than 60 years. There was no compelling reason to change current recommendations (JNC 7).

Recommendation 4:
In the population aged 18 years or older with CKD, initiate pharmacologic treatment to lower BP at SBP of 140 mm Hg or higher or DBP of 90 mm Hg or higher and treat to goal SBP of lower than 140 mm Hg and goal DBP lower than 90 mm Hg. There is insufficient RTC data to show a benefit on slowing progression of kidney disease or cardiovascular outcomes of a lower BP goal (compared to < 140/90). This is in contrast to recommendations for lower goals by other groups such as KDIGO.

Recommendation 5:
In the population aged 18 years or older with diabetes, initiate pharmacologic treatment to lower BP at SBP of 140 mm Hg or higher or DBP of 90 mm Hg or higher and treat to a goal SBP of lower than 140 mm Hg and goal DBP lower than 90 mm Hg. The panel also recognizes that a SBP goal of lower than 130 mm Hg is commonly recommended for adults with diabetes and hypertension. However, this lower SBP goal is not supported by any RCT. Despite some existing recommendations that adults with diabetes and hypertension should be treated to a DBP goal of lower than 80 mm Hg, the panel did not find sufficient evidence to support such a recommendation.

Recommendation 6:
In the general non-black population, including those with diabetes, initial antihypertensive treatment should include a thiazide-type diuretic, calcium channel blocker (CCB), angiotensin converting enzyme inhibitor (ACEI), or angiotensin receptor blocker (ARB). Beta-blockers were not recommended due to one study that found it to be inferior to ARB based on higher rate of cardiovascular outcomes. Other classes of medications were not recommended mainly due to lack of RCTs that compared single medication classes. Therefore, these drug classes were not recommended as first-line therapy. While this recommendation applies only to the choice of the initial antihypertensive drug, the panel suggests that any of these 4 classes would be good choices as add-on agents.

Recommendation 7:
In the general black population, including those with diabetes, initial antihypertensive treatment should include a thiazide-type diuretic or CCB. RTC showed a thiazide-type diuretic to be more effective in improving cerebrovascular, heart failure, and combined cardiovascular outcomes compared to an ACEI in black patients. Although a CCB was less effective than a diuretic in preventing heart failure in black patients, there were no differences in other outcomes (cerebrovascular, CHD, combined cardiovascular, and kidney outcomes, or overall mortality) between a CCB and a diuretic.

Recommendation 8:
In the population aged 18 years or older with CKD and hypertension, initial (or add-on) antihypertensive treatment should include an ACEI or ARB to improve kidney outcomes. This applies to all CKD patients with hypertension regardless of race or diabetes status. This recommendation is based primarily on kidney outcomes because there is less evidence favoring ACEI or ARB for cardiovascular outcomes in patients with CKD.

Recommendation 9:
The main objective of HTN treatment is to attain and maintain goal BP. If goal BP is not reached within a month of treatment, increase the dose of the initial drug or add a second drug from one of the classes in recommendation 6 (thiazide-type diuretic, CCB, ACEI, or ARB). The clinician should continue to assess BP and adjust the treatment regimen until goal BP is reached. If goal BP cannot be reached with 2 drugs, add and titrate a third drug from the list provided. Do not use an ACEI and an ARB together in the same patient. If goal BP cannot be reached using the drugs in recommendation 6 because of a contraindication or the need to use more than 3 drugs to reach goal BP, antihypertensive drugs from other classes can be used. Referral to a hypertension specialist may be indicated for patients in whom goal BP cannot be attained using the above strategy or for the management of complicated patients for whom additional clinical consultation is needed.
In summary, JNC 8 appears to be less aggressive in the treatment of hypertension due to higher goals compared to previous recommendations. These guidelines differ from the recommendations of several other groups such as ADA, but it should also be noted that other groups have begun to change their guidelines based on the same evidence. The recommendations in JNC 8 are based as closely on the data provided by RCT's as possible, where previous guidelines were based more on expert opinion and did not systematically review the literature. The development of these guidelines brings to light that there are many areas of treatment of hypertension that have not been studied in the detail needed to better define treatment goals and treatment choices compared against one another. JNC 8 is only a guideline (as all other clinical guidelines) and does not dictate the care of patients. Clinical judgment must be used with each patient and new information evaluated as new clinical trials are published.

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**Diagram:**

- **Adult aged ≥18 years with hypertension**
  - Implement lifestyle interventions (continue throughout management).
  - Set blood pressure goal and initiate blood pressure lowering—medication based on age, diabetes, and chronic kidney disease (CKD).
  - General population (no diabetes or CKD) vs. Diabetes or CKD present
    - Blood pressure goal: SBP <140 mm Hg DBP <90 mm Hg
    - Age ≥60 years vs. Age <60 years
      - Blood pressure goal: SBP <150 mm Hg DBP <90 mm Hg
      - All ages Diabetes present vs. No CKD
        - Blood pressure goal: SBP <140 mm Hg DBP <90 mm Hg
    - Nonblack vs. Black
      - Blood pressure goal: SBP <140 mm Hg DBP <90 mm Hg
      - All races
    - Select a drug treatment titration strategy
      - A. Maximize first medication before adding second or
      - B. Add second medication before reaching maximum dose of first medication or
      - C. Start with 2 medication classes separately or as fixed-dose combination.

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*SBP indicates systolic blood pressure; DBP, diastolic blood pressure; ACEI, angiotensin-converting enzyme; ARB, angiotensin receptor blocker; and CCB, calcium channel blocker.*

**Note:**

*ACEIs and ARBs should not be used in combination.
If blood pressure fails to be maintained at goal, reenter the algorithm where appropriate based on the current individual therapeutic plan.
The need for immunizations does not end when you reach adulthood. The need depends on a variety of circumstances such as age, health status, past immunizations, pregnancy and travel plans, as well as who you are in close contact with. For example: Tetanus and diphtheria injections should be given every 10 years throughout adulthood to maintain immunity.

Every year the US Advisory Committee on Immunizations Practices (ACIP), The American College of Physicians, the American Academy of Family Physicians and The American College of Obstetrics and Gynecologists recommend a specific adult immunization schedule. Immunizations that may be recommended for adults include the following:

**Chickenpox (Varicella) Vaccine**
The vaccine Varivax® protects against chickenpox which can be a serious illness after childhood. Adults who do not have immunity against the chickenpox virus should receive 2 doses at least 4 to 8 weeks apart from each other. This immunization should be emphasized for anyone who has close contact with persons at high risk for severe disease (e.g. healthcare personnel and family contacts of persons with immunocompromising conditions) or those who are at high risk for exposure or transmission (e.g. teachers, childcare providers, residents, and staff members in institutional settings). Contraindications include those with history of an allergic reaction to a previous dose or to vaccine components, those with known severe immunodeficiency and pregnancy. Precautions are advised in those with severe or moderate acute illness with or without fever, recent (within 11 months) receipt of antibody-containing blood products (specific intervals depend on product) and receipt of antiviral medication (e.g. acyclovir, famciclovir, valacyclovir) 24 hrs prior to the vaccine.

**Flu (influenza) Vaccine**
The flu vaccine helps protect against the seasonal flu and H1N1 (swine flu). Since the flu virus is always changing, the vaccine is updated every year and is only effective for 1 year. It is recommended for all persons 6 months or older and especially those with chronic health conditions such as asthma, diabetes, heart and lung disorders and those with immune system impairment (LAIV vaccine is contraindicated in these groups). Persons aged 6 months or older as well as pregnant women and persons with hives-only allergy to eggs, can receive the inactivated influenza vaccine (IIV). Adults age 18-49 years can receive the recombinant influenza vaccine (RIV) (Flublok®). Healthy, non-pregnant individuals aged 2-49 years without high risk medical conditions can receive either intranasal live attenuated influenza (LAIV) (Flumist®) or IIV. Healthcare personnel who care for severely immunocompromised persons should receive the IIV or RIV rather than LAIV. The IM or intradermal administration of IIV are also options for adults 18-64 years of age. Adults 65 years or older can receive the standard dose IIV or the high-dose IIV (Fluzone® high-dose). Contraindications for flu vaccine include those with allergic reaction to a previous dose or to vaccine components, including egg. RIV is an option for those with egg allergy since it does not contain egg protein. Precautions should be taken in those with severe or moderate acute illness with or without fever as well as history of Guillain-Barre Syndrome within 6 weeks of previous injection.

**Hepatitis A Vaccine**
Hepatitis A vaccine is used primarily for those in close contact with a child adopted from a foreign country.
country with high Hepatitis A rates. It is also recommended for the following: men that have sex with other men, persons who use shared injection equipment or involved with illicit drug use, persons with chronic liver disease, persons who receive clotting factor concentrates, and persons working with primates in research facilities.

**Hepatitis B Vaccine**

The Hepatitis B Vaccine protects against hepatitis B virus and is recommended for any adult whose occupation, health status, traveling or lifestyle puts them at risk for the disease. 3 doses are given at 0, 1 and 6 months. TWINRIX®, is combination Hepatitis A and B vaccine that is recommended for adults 18 years or older who are at a greater risk for both diseases. Contraindications include those with a history of allergic reaction to a previous dose or to vaccine components. Precautions are also advised with severe or moderate acute illness with or without fever.

**Measles, Mumps, Rubella (MMR) Vaccine**

The MMR vaccine protects against measles, mumps and rubella. Anyone born during or after 1957 may need 1 or 2 doses if they do not show laboratory evidence of immunity to all 3 diseases. Documentation of provider-diagnosed disease is not considered acceptable evidence of immunity for MMR. Women should avoid becoming pregnant for 28 days after receiving the MMR vaccine. Contraindications include known allergic reaction to a previous dose or to a vaccine component, concurrent chemotherapy, congenital immunodeficiency or long-term immunosuppressant therapy, patients with HIV who are severely immunocompromised, and pregnancy. Precautions should be considered with severe or moderate acute illness with or without fever, recent (within 11 months) receipt of antibody-containing blood products, and history of thrombocytopenia or thrombocytopenic purpura. In addition, MMR may temporarily reduce the reactivity of the TB skin test, so if testing is needed, it is best to wait until 4 weeks after the MMR is given.

**Pneumococcal Vaccine Polyvalent**

The pneumococcal vaccine does not necessarily prevent one from getting pneumonia, but does help with preventing some of the complications associated with pneumonia such as bacteremia and sepsisemia. Anyone 65 years of age or older, residents in LTC facilities, smokers, and those with HIV infection should receive this vaccine. Those 19-65 years with the following conditions should also be vaccinated: Chronic lung disease, CVD, DM, Chronic renal failure, Chronic liver disease, alcoholism, cochlear implants, CSF leaks, and immuno-compromising conditions. A one time revaccination 5 years after the first dose is recommended for persons considered high risk aged 19 through 64 years. Persons receiving 1 or 2 doses before age 65 for any indication should receive another dose of the vaccine at age 65 or later if at least 5 years has passed since their previous dose. No further doses of PPSV23 are needed for persons vaccinated with PPSV23 at or after age 65.

**Shingles (Varicella Zoster)**

The Zostavax® vaccine protects against shingles. It is NOT a replacement for the chickenpox vaccine. Adults 60 years of age and older can receive this vaccine regardless if they have had shingles previously or not. While the FDA states that it can be administered to persons 50 yrs or older, the ACIP recommends administration to start at age 60. Persons with chronic medical conditions can be vaccinated unless contraindicated, such as with immunosuppressive therapy, chemotherapy, immunodeficiency such as hematologic and solid tumors, patients with HIV who are severely immunocompromised and pregnancy.

**Tetanus, Diphtheria (TD) or with Pertussis (TDAP)**

The TDAP vaccine protects against tetanus, diphtheria and pertussis (whooping cough). The TD vaccine only protects against tetanus and diphtheria. All adults need TD vaccine at least every 10 years throughout adulthood. Anyone aged 19-64 should have at least 1 dose of TDAP in place of the TD. All adults who are in close contact with an infant younger then 1 year of age should have the TDAP vaccine at least 2 weeks prior to contact with the infant. This will help protect the infant from pertussis. Any adult who would like the protection from whooping cough can also receive the TDAP vaccine once.

For further information on vaccines you can contact the CDC at 1800-cdc-info or email at cdcinfo@cdc.gov and the website www.cdc.gov/vaccines.

*Article by Sue Tolerico, RN, CRNI*
The American Health Care Association (AHCA)/National Center for Assisted Living (NCAL) National Quality Award Program provides a pathway for providers of long term care services to journey towards performance excellence. The program is based on the core values and criteria of the Baldrige Performance Excellence Program.

The Quality Award program has three progressive step levels. Applications are judged by trained Examiners who provide feedback on opportunities for improvement to support continuous learning. Facilities must achieve an award at each level to progress to the next level.

**Bronze – Commitment to Quality** applicants begin their quality journey by developing an organizational profile including vision and mission statements, an awareness of their environment and customers’ expectations, and a demonstration of their ability to improve a process.

**Silver – Achievement in Quality** applicants demonstrate a level of achievement in their quality journey through good performance outcomes that have evolved from how they embrace the core values and concepts of visionary leadership, focus on the future, resident-focused excellence, management by innovation, and focus on results and creating value.

**Gold – Excellence in Quality** applicants must show superior performance over time that is based on their systematic approaches to leadership, strategic planning, focus on customers, measurement, analysis and knowledge management, workforce focus, process management and results. Gold applicants address the complete Baldrige Criteria for Performance Excellence in Health Care.

Congratulations to the following Neil Medical Group clients that have been recognized as Award recipients for 2014!

**Silver**
- Cherry Point Bay (Havelock)
- Macon Valley Nursing (Franklin)

**Bronze**
- Harnett Woods (Dunn)
- Roanoke Landing (Plymouth)
- Franklin Oaks (Louisburg)
- Harmony Hall (Kinston)
- Tarboro Nursing Center (Tarboro)
- Northampton Nursing & Rehab (Jackson)
- Bethany Woods (Albemarle)
- Ayden Court (Ayden)
- Enfield Oaks (Enfield)
- Rivers Edge (Prospect)