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Guest Editors: Ashley Maples, Pharm.D. Candidate and Min Hui Loi-Bradén, Pharm.D. Candidate

May is National Stroke Awareness Month



and Hypertension Education Month



NEW DRUG INFORMATION and other related stuff...

Aliskiren (Tekturna®), was approved by the FDA on March 7, 2007 for the treatment of hypertension as monotherapy or in combination with other antihypertensive medications. It is the first new type of hypertension medication called direct renin inhibitors to be approved in over a decade. Aliskiren works by inhibiting plasma renin activity and preventing the conversion of angiotensinogen to angiotensin I. It is unknown whether aliskiren affects other parts of the renin-angiotensin-aldosterone system. The recommended dose of aliskiren is 150 mg once daily, however if adequate blood pressure control is not achieved it can be increased to 300 mg once daily. Patients can take aliskiren with or without food, however high fat meals may decrease its absorption. Aliskiren has also been studied in combination with other antihypertensives such as ACE inhibitors, angiotensin receptor blockers, amlodipine, and hydrochlorothiazide. For more information about this drug, refer to the package insert at

<http://www.pharma.us.novartis.com/product/pi/pdf/tekturna.pdf>

[Tekturna® (aliskiren) Novartis Pharmaceuticals, East Hanover, NJ, March 2007]

Abramowicz M, editor. Aliskiren (*Tekturna*) for Hypertension. *Med Lett Drugs Ther.* 2007 Apr 9;49(1258):29-31.

IMPORTANT STROKE FACTS:

- Stroke is the third leading cause of death after heart disease and cancer and the #1 leading cause of adult disability; 80% of strokes are preventable¹
- Approximately 700,000 people suffer from a stroke every year in the US, translating into a stroke approximately every 45 seconds resulting in 150,000 deaths annually²
- African Americans are two times more likely to have a stroke than Caucasians³
- People with hypertension (>140/90 mmHg) are at twice the risk of suffering from a stroke than those without hypertension³
- Every hour that treatment is delayed after a stroke approximately 120 million brain cells die and for every 12 minutes a part of the brain the size of a pea dies.³
- The brain ages 3.6 years the 1st hour after a stroke and about 36 years during a 10 hour stroke.³

1. National Stroke Association [homepage on the internet]. Centennial, CO: [cited on 15 Apr 2007]. Available from:

<http://www.stroke.org/site/PageServer?pagename=STROKE2>

2. American Heart Association. Heart Disease and Stroke Statistics-2007 Update. Dallas, American Heart Association, 2007.

3. St. Anthony's Medical Center [homepage on the internet]. St. Louis: [updated 2006; cited on 15 Apr 2007]. Stroke Facts; Available from: http://www.stanthonyshospital.com/healthcareServ/neuro/stroke_facts.asp

INFORbits on Stroke and Hypertension...

What is a stroke? A stroke is commonly referred to as a “brain attack.” Strokes result from a sudden interruption of blood flow to the brain. When this occurs the brain is deprived of oxygen

and necessary nutrients. Therefore, strokes are considered medical emergencies because brain cells die rapidly and treatment is more effective the sooner it is started. There are two different types of strokes: **ischemic** and **hemorrhagic** stroke. Ischemic strokes occur when a blood vessel supplying the brain contains a blockage such as a clot. Hemorrhagic strokes occur when a blood vessel in the brain ruptures causing bleeding into the brain. Symptoms include sudden numbness or weakness affecting one side of the body, difficulty or inability to speak, confusion, vision loss, vertigo, difficulty walking, loss of coordination or balance, or severe headache with no known cause. Strokes can lead to permanent disability such as hemiplegia, hemiparesis, cognitive dysfunction, and aphasia.^{4,5}

Transient ischemic attack (TIA)... TIAs are also called “mini-strokes” and usually last for a few minutes. Most symptoms disappear within the first hour, but symptoms can last up to 24 hours. TIAs are the result of a brief interruption of blood flow to the brain. A TIA is often a warning sign that a patient will experience a more severe stroke. In fact, about 1 out of every 4 people that have a stroke will have a bigger and more severe stroke within 5 years. TIAs are also considered medical emergencies since it is often difficult to decipher between these and more severe strokes. In other words, do not wait to see if symptoms will disappear...seek medical attention immediately.^{4,5}

Hypertension....or high blood pressure is a silent disease that continues to be a significant health concern for many Americans. Research shows that even small decreases in blood pressure can considerably improve the stroke and myocardial infarction rate of patients.⁶ Approximately 32% of the 50 million people in the US with hypertension are not even aware they have it. An astounding 50% of patients who are aware they have hypertension do not have their blood pressure under control.⁷ The result is that less than 25% of the US population has control of this vital health risk.⁸ One of the biggest risk factor for acute stroke is hypertension so controlling it is an important step that anyone can take to prevent strokes.^{9,10}

4. Meadows M. Brain attack, a look at stroke prevention and treatment. FDA consumer, Mar-Apr 2005; 21-27. Available from: <http://web.ebscohost.com/ehost/pdf?vid=2&hid=6&sid=19de2a99-4fc2-4b5b-99ea-782918cddae9%40sessionmgr2>
5. National Institute of Neurological Disorders and Stroke. NINDS stroke information page. Last updated April 04, 2007. National Stroke Association [homepage on the internet]. Centennial, CO: [cited on 15 Apr 2007]. Available from: <http://www.stroke.org/site/PageServer?pagename=SYMP>
6. Dustan H. Current hypertension control is just not good enough- Editorial. Am Fam Physician. 1998; 58:1323-30.
7. Hyman DJ and Pavlik VN. Poor hypertension control: Let's stop blaming the patients. Cleve Clin J Med. 2002; 69:793-9.
8. Hajjar I, Kotchen TA. Trends in prevalence, awareness, treatment, and control of hypertension in the United States, 1988 – 2000. JAMA. 2003; 290:199 – 206.
9. Goldstein RA, Alberts MJ, Appel LJ, Brass LM, Bushnell C, Culebras A. Primary prevention of ischemic stroke. A guideline from the American Heart Association. Stroke 2006;37:1-52.
10. Chobanian AV, Bakris GL, Black HR, Cushman WC, Green LA, Izzo JL, et al. The seventh report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of high blood pressure. JAMA. 2003. 289(19):2560-72.

FROM THE LAY LITERATURE

Did you know.....

- Smoking can increase arterial wall stiffness and is considered a major risk factor for developing hypertension and other associated cardiovascular diseases
- Certain OTC drugs such as decongestants (e.g. ephedrine, pseudoephedrine and phenylpropanolamine) and NSAIDS (e.g. ibuprofen, naproxen and ketoprofen) can aggravate hypertension and lead to poorer blood pressure control
- Less salt is better....the average salt intake of an American is 6-18 grams per day, while the body only requires 0.5 gram of salt to function physiologically. The recommended daily salt intake should be 1.5 grams or less.
- Individuals who are obese with a body mass index (BMI) > 30 kg/m² are at higher risk for developing high blood pressure



AmericanHeart.org [homepage on the Internet]. Dallas: American Heart Association, Inc.; c2007 [updated 2007 March 19; cited 2007 April 16]. Available from: <http://www.americanheart.org>

The optimal blood pressure for adults is < 120/80 mmHg. Hypertension is classified in stages....

Category	Systolic (mmHg)		Diastolic (mmHg)
Normal	<120	and	<80
Prehypertension	120-139	or	80-89
Stage I Hypertension	140-159	or	90-99
Stage II Hypertension	≥160	or	≥100

Individuals diagnosed with hypertension should have their blood pressure <140/90 mmHg. Individuals who also have diabetes should have their blood pressure <130/80 mmHg.

Chang L, editor. Hypertension: blood pressure basics. From WebMD, Inc. c2005 <http://www.webmd.com/hypertension-high-blood-pressure/guide/blood-pressure-basics>

What is the DASH diet?.....DASH diet is an acronym for Dietary Approaches to Stop Hypertension. According to the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC VII) report, the DASH diet has been shown in studies to reduce blood pressure by 8-14 mmHg. It incorporates an eating plan that follows heart healthy guidelines that involves eating more fruits, vegetables, and low fat or non-fat dairy products into everyday meals while limiting foods high in saturated fats and cholesterol. For more information on the DASH diet, see http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/new_dash.pdf <http://www.nhlbi.nih.gov/guidelines/hypertension/jnc7full.pdf>

Are you at risk for a stroke? There are numerous risk factors for stroke, some which can be modified and others that cannot be modified. Controllable risk factors include: high blood pressure, cigarette smoking, diabetes mellitus, carotid or other artery disease, atrial fibrillation, heart disease, sickle cell disease, high blood cholesterol, and physical inactivity and obesity. Risk factors that cannot be controlled are age, heredity and race, gender, and prior stroke, TIA, or heart attack. If you would like to calculate your risk of suffering from a stroke, visit <http://www.stroke.org/site/DocServer/scorecardQ.pdf?docID=601>.

If you think someone is having a stroke act F.A.S.T.

F ace	Ask the patient to smile. Does one side of their face droop?
A rms	Ask the patient to raise both arms. Does one arm drift downward?
S peech	Ask the patient to repeat a simple sentence. Are the words slurred? Can they repeat the sentence correctly?
T ime	If the patient shows any of these symptoms, time is important. Call 911 or get to the hospital fast. Brain cells are dying.

AmericanHeart.org [homepage on the Internet]. Dallas: American Heart Association, Inc.; c2007 [updated 2007 March 19; cited 2007 April 20]. Available from: <http://www.americanheart.org>

National Institute of Neurological Disorders and Stroke. NINDS stroke information page. Last updated April 04, 2007. National Stroke Association [homepage on the internet]. Centennial, CO: [cited on 19 Apr 2007]. Available from: <http://www.stroke.org/site/PageServer?pagename=RISK>

FROM THE MEDICAL LITERATURE



Flavonoids, a form of natural anti-oxidant found in dark chocolate may help lower blood pressure. A study was conducted to compare the effect of consuming flavonoid-rich dark chocolate against flavonoid-devoid white chocolate in men and women with hypertension. At the end of the 15 days trial period, the results showed that individuals randomized to eating dark chocolate had a mean reduction of 12 mmHg systolic pressure and mean reduction of 9 mmHg diastolic pressure. Blood pressure reduction was not seen in individuals who consumed white chocolate. The authors concluded that dark chocolate may prove beneficial to individuals with high blood pressure, but cautioned against eating dark chocolate in lieu of anti-hypertensive pharmacotherapy and exercise.

Sleep and blood pressure.....Middle-aged individuals who did not get adequate sleep were found to have higher risk of developing hypertension in a recent epidemiological study. Researchers found that after adjusting for various confounding factors (e.g. obesity, diabetes mellitus, alcohol consumption, smoking, diet, and physical activity), individuals between the ages of 32-59 years who reported sleeping ≤ 5 hours each night were 60% more likely to be diagnosed with hypertension compared to individuals who reported getting ≥ 7 hours sleep over an 8-10 year follow-up period. The researchers hypothesized that short sleep duration could play a role in the etiology of hypertension by exposing individuals to longer periods of sympathetic stimulation.

Gangwisch JE, Heymsfield SB, Boden-Albala B, Buijs RM, Kreier F, Pickering TG, et al. Short sleep duration as a risk factor for hypertension – analysis of the first national health and nutrition examination survey. *Hypertension*. 2006;47(5):833-9.

Stroke linked to amphetamine and cocaine use in young adults...A recent study published in *Archives of General Psychiatry* looked at more than 8,300 patients aged 18 to 44 who had suffered from ischemic or hemorrhagic strokes from 2000 to 2003. This study found that the rates of stroke were highest among amphetamine abusers. Young people who used amphetamines were 5 times more likely to suffer hemorrhagic or ischemic stroke, double that of nonabusers. In 2003 (the first year that hospitals in the United States were required to differentiate between hemorrhagic and ischemic strokes) more than 14% of hemorrhagic and 14% ischemic strokes were due to amphetamine, cocaine, marijuana, and tobacco use. This study is important because methamphetamine use is increasing in young people and it finally establishes a link between methamphetamine and strokes. For more information on strokes associated with illegal drug use, visit <http://www.medicalnewstoday.com/medicalnews.php?newsid=66953>.

Westover AN, McBride S, Haley RW. Stroke in young adults who abuse amphetamines or cocaine. *Arch Gen Psychiatry* 2007;495-502



Other Important Dates in May

Asthma & Allergy Awareness Month

Better Hearing & Speech Month

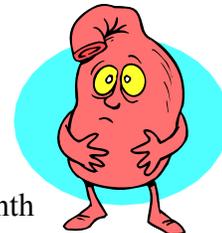
Digestive Diseases Awareness Month

Mental Health Month

Melanoma/Skin Cancer Detection & Prevention Month

Hepatitis Awareness Month

World “No Tobacco” Day (31st)



The last “dose” ...

The doctor of the future will give no medicine, but will interest her or his patients in the care of the human frame, in a proper diet, and in the cause and prevention of disease.

Thomas A. Edison

US inventor (1847 - 1931)

An electronic bulletin of drug and health-related news highlights, a service of ...

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Bernie R. Olin, Pharm.D., Director