CHIPS REGIMEN

Drug Information News Letter
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'MAP' Program Improves Hypertension Control

Primary-care practices using the "MAP" hypertension quality-improvement program saw an improved blood-pressure control in their patients in just 6 months.

MAP is an acronym that stands for:

- Measure blood pressure accurately every time.
- Act rapidly to manage uncontrolled blood pressure.
- Partner with patients to promote blood-pressure self-management.

The MAP BP improvement program is a central part of Target: BP, a joint initiative between the American Heart Association (AHA) and the American Medical Association (AMA) aimed at reducing the number adults who die each year from MI and stroke.

The goal of this program is to make it easier for doctors and care teams to help people with hypertension effectively manage their blood pressure. Researchers compared blood pressure measurements of more than 21,000 hypertensive patients from 16 practices, comparing their blood pressures from the start of the study to those taken six months into participating in the MAP intervention.

They found:

- Blood pressure control rose from 65.6 to 74.8 percent after six months.
- Twelve of the 16 practices in the study reported notably better blood pressure control in their hypertensive patients.
- Among the uncontrolled patients at the study's start, average blood pressure fell from 149/85 to 139/80 mm Hg.
- Teaching accurate blood pressure measurement technique resulted in reduced systolic pressures in uncontrolled patients in the office.
- There was no notable change in physicians increasing the number of or dosage of anti-hypertensive medications to treat patients with uncontrolled blood pressure.
- There was a significant increase in drop of blood pressure with each medication change made during the study (14 mm Hg), compared to drop of blood pressure with each medication change prior to the study (5.4 mm Hg).

Thus MAP's evidence-based strategies are useful not only for quick improvement of blood pressure control but also in reducing the complications associated with hypertension.

Reference : http://www.medscape.com/viewarticle/885878

Printed & Published by

Dr.K. Basavapunnaiah, President

Dr.C.N. Srinivas, Secretary & Correspondent

Edited By

Dr.S.Vidyadhara, Principal

Editorial Team:

Dr. R. Hari Babu, Dr. R.L.C. Sasidhar, S. Vikas, Dr. M.Raghava Kalyan

New Recommendations for Controlling Chemotherapy induced Nausea and Vomiting

An update of the American Society of Clinical Oncology (ASCO) clinical practice guideline covers new medicines for nausea and vomiting related to cancer treatment. This update of ASCO, provides new evidence-based information on the appropriate use of olanzapine, NK1 receptor antagonists and dexamethasone.

"Tremendous progress has been realized over the last 25 years in the prevention of chemotherapy-induced nausea and vomiting with the introduction of new classes of antiemetic agents." The full benefit of these treatment advances will only be realized, however, if evidence-based guidelines are fully implemented."

Key recommendations:

- For adults receiving chemotherapy with a high risk of nausea and vomiting (e.g., cisplatin, the combination of cyclophosphamide and an anthracycline), olanzapine should be added to standard antiemetic regimens (the combination of a 5-HT3 receptor antagonist, an NK1 receptor antagonist and dexamethasone). Olanzapine also helps individuals who experience symptoms despite receiving medicines to prevent vomiting before chemotherapy is given.
- For adults receiving carboplatin-based chemotherapy or high-dose chemotherapy, and children receiving chemotherapy with a high risk for nausea and vomiting, an NK1 receptor antagonist should be added to the standard antiemetic regimen (the combination of 5-HT3 receptor antagonist and dexamethasone).
- Dexamethasone treatment can be limited to the day of chemotherapy administration in patients receiving the combination of an anthracycline and cyclophosphamide.
- The Expert Panel recommends FDA-approved cannabinoids, dronabinol or nabilone to treat nausea and vomiting that is resistant to standard antiemetic therapies.

Reference : https://www.asco.org/new-recommendations-controlling-nausea-and-vomiting-related

TODAY'S MUST WATCH

BRAND	DRUG	INDICATION
Vabomere	Meropenem and Vaborbactam	Treatment of complicated urinary tract infections
Duzallo	Lesinurad and Allopurinol	Treatment of hyperuricemia associated with gout
Gocovri	Amantadine	Treatment of Parkinson's disease dyskinesia
Solosec	Secnidazole	Treatment of bacterial vaginosis
KedRab	Rabies Immune Globulin(Human)	Post-exposure prophylaxis of rabies infection
Endari	L-glutamine oral powder	Treatment of sickle cell disease
	Benznidazole	Treatment of Chagas disease

- **Vabomere :** It is specifically indicated for the treatment of patients who are 18 years and above with complicated urinary tract infections (cUTI) including pyelonephritis caused by designated susceptible bacteria. The FDA approval of Vabomere was based on TANGO-1, a Phase III, multi-center, randomized, double-blind and double-dummy study to evaluate the efficacy, safety and tolerability of Vabomere compared to piperacillin-tazobactam in the treatment of cUTI, including acute pyelonephritis, in adults.

  Reference : https://www.centerwatch.com/drug-information/fda-approved drugs/drug/100222/vabomere-meropenem-and-vaborbactam.

- **Duzallo :** It combines two medications with complementary mechanisms of action: Lesinurad, a uric acid reabsorption inhibitor, and allopurinol, a xanthine oxidase inhibitor. Duzallo is specifically indicated for the treatment of hyperuricemia associated with gout in patients who have not achieved target serum uric acid levels with a medically appropriate daily dose of allopurinol alone.

  Reference : https://www.centerwatch.com/drug-information/fda-approved-drugs/drug/100220/duzallo-lesinurad-and-allopurinol.

- **Gocovri :** It is specifically indicated for the treatment of dyskinesia in patients with Parkinson's disease receiving levodopa-based therapy, with or without concomitant dopaminergic medications. It is supplied as an extended release capsule for oral administration. The initial daily dosage is 137 mg; after 1 week, increase to the recommended daily dosage of 274 mg. Administer orally once daily at bedtime.

  Reference : https://www.centerwatch.com/drug-information/fda-approved-drugs/drug/100221/gocovri-amantadine.

- **Endari :** It is specifically indicated to reduce the severe complications of sickle cell disease (SCD) in adults and pediatric patients of age 5 years and above. It reduces oxidant damage to red blood cells by improving the redox potential of nicotinamide adenine dinucleotide (NAD), a coenzyme that has been identified as the primary regulator of oxidation.

  Reference : https://www.centerwatch.com/drug-information/fda-approved-drugs/drug/100213/endari-l-glutamine-oral-powder.

STUDENTS CORNER

STATINS in Chronic Liver Diseases

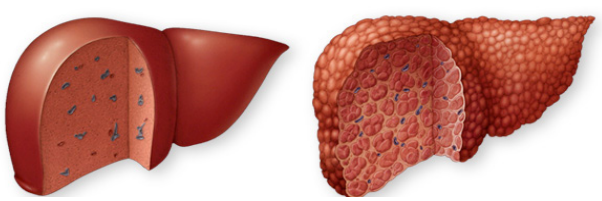
Statins are one class of medications being studied to determine their effect on progression and decompensation of Chronic Liver Diseases (CLDs). Statins are lipid-lowering agents, besides that, statins also shows pleotrophioc effects on heart. Recent studies have suggested an association between statin use and risk of fibrosis progression and hepatic decompensation in patients with CLDs, although the effects have been variable.

A meta-analysis was conducted on 121,058 patients with CLDs to evaluate the association between statins and risk of cirrhosis and related complications in patients with CLDs. Among 121,058 patients with CLDs (84.5% with hepatitis C), 46% were exposed to statins. In patients with cirrhosis, statin use was associated with 46% lower risk of hepatic decompensation (4 studies; RR, 0.54; 95% CI, 0.46-0.62; I^2 = 0%), and 46% lower mortality (5 studies; RR, 0.54; 95% CI, 0.47-0.61; I^2 = 10%).

In patients with CLD without cirrhosis, statin use was associated with a nonsignificant (58% lower) risk of development of cirrhosis or fibrosis progression (5 studies; RR, 0.42; 95% CI, 0.16-1.11; I^2 = 99 %;). In 3 randomized controlled trials, statin use was associated with 27% lower risk of variceal bleeding or progression of portal hypertension (hazard ratio, 0.73; 95% CI, 0.59-0.91; I^2 = 0%;)

In this study, moderate-quality evidence suggests beneficial effect of statins on risk of hepatic decompensation and mortality, and variceal bleeding, especially in patients with known compensated cirrhosis, and low-quality evidence suggests a mortality benefit in patients with CLDs. Together with these evidences they suggests that "Statin use is probably associated with lower risk of hepatic decompensation and mortality, and might reduce portal hypertension, in patients with CLDs"

Reference : http://www.cghjournal.org/article/S1542-3565(17)30533-5/



CLINICAL CONNECTION

- **Drug safety communication:**
  Triamcinolone and Moxifloxacin eye drops with Risk! :

  The US Food and Drug Administration (FDA) issued a safety alert today after serious adverse events were reported in at least 43 patients who received intravitreal injections of a drug that contained compounded triamcinolone and moxifloxacin product. The steroid-anti-infective combination was administered into the vitreous of the eye after cataract surgery to prevent post-operative ocular inflammation and endophthalmitis; the expectation was that the patients would not need to use postoperative eye drops. During several months postoperatively, patients developed a variety of symptoms including vision impairment, poor night vision, loss of color perception, photophobia, glare, halos, flashing lights, ocular discomfort, pain, loss of balance, headaches, and/or nausea. Some symptoms did not occur until a month or longer after surgery. Some patients experienced symptom improvement during the 5 months post-operatively; however, a number of patients continue to experience "a significant reduction in best-corrected visual acuity and visual fields," the FDA writes in the safety alert.

  Reference: https://www.fda.gov/Drugs/DrugSafety/ucm569114.htm

- **Drug Efficacy communication :**

  Dapagliflozin comes with a Benefit Dapagliflozin is a sodium-glucose cotransporter-2 inhibitor approved for the treatment of type 2 diabetes.

  Dapagliflozin can be used as an add-on to adjustable insulin to improve glycemic control in patients with inadequately controlled type-1diabetes. Addition of dapagliflozin to insulin had significantly reduced HbA1c in type- 1 Diabetes

  A double- blind randomized trail, parallel-controlled, phase 3, multicentre study was conducted to assess the efficacy and safety of dapagliflozin as an add-on to adjustable insulin in patients with inadequately controlled type 1diabetes. The primary efficacy outcome was the change from baseline in HbA1c after 24 weeks of treatment. This study included the patients aged 18–75 years and had inadequately controlled type 1 diabetes and had been prescribed insulin for at least 12 months before enrolment. After an 8 week lead-in period to optimize diabetes management, patients were randomly assigned to 3 groups- dapagliflozin- 5 mg, dapagliflozin- 10 mg once daily and placebo along with insulin.

  At week 24, both doses of dapagliflozin significantly reduced HbA1c compared with placebo. Mean baseline HbA1c was 8.53% (70 mmol/mol; SD 0.67% [7.3 mmol/mol]). Mean difference from baseline to week 24 for dapagliflozin 5 mg vs placebo was –0.42% [95% CI –0.56 to –0.28; p<0.0001] and for dapagliflozin 10 mg vs placebo was –0.45% [–0.58 to –0.31; p<0.0001].

  Hence, dapagliflozin is a promising adjunct to insulin to improve glycemic control in patients with inadequately controlled type 1 diabetes

  Reference: http://www.thelancet.com/journals/landia/article/PIIS2213-8587 (17)30308-X

ADVICE

NOVEMBER : ALZHEIMER'S AWARENESS MONTH

Alzheimer is a progressive and fatal brain disease. As many as 45 million people worldwide are living with Alzheimer 's disease. It destroys brain cells, causing problems with memory, thinking and behavior severe enough to affect work, lifelong hobbies or social life. It gets worse over time, and it is fatal. Today it is the sixth – leading cause of death.

PILLARS FOR PREVENTION

Diet & Supplements : Your diet is critical to your brain's health. And with the proper diet you can actually influence the health of your genes. That's right – prevention is within your reach and it starts with the foods you put in your body.

Stress management : Balancing your daily stress is a vital part of any Alzheimer's prevention strategy. There is a high correlation between having high cholesterol, high blood pressure, and/ or high cortisol and the onset of the disease. Stress is a key factor in all of these conditions.

Exercise and brain aerobics : Did you know that regular physical and mental exercise can dramatically reduce your risk for developing Alzheimer's disease? Leading an overall active lifestyle is the ultimate key to brain and body health.

Medicine : There may be a place for the use of pharmaceutical medications as part of an integrative medical program to treat and even prevent Alzheimer's disease. Current medicines may improve symptoms but have no effect on the progression of the disease

Quality of sleep : A growing body of research in both mice and humans shows that disturbed sleep leads to higher levels of soluble beta amyloid, the protein that folds and forms the sticky plaques that kill brain cells and bog down information processing.Depositing amyloid in brain tissue is the first known preclinical stage of Alzheimer's and happens well before any obvious symptoms of dementia begin. So, teenagers require 8-10 hours of pleasant sleep, while adults need 7 – 9 hours.

Quit smoking : People who smoke heavily during middle age have a 157% higher risk of developing Alzheimer's. Also quit smoking earlier can result in fewer risk factors for dementia overall.

Spiritual fitness : Increased consciousness and cognition is the final frontier of Alzheimer's prevention. Developing your spiritual fitness, or psycho- spiritual well- being, may very well help reduce your risk of Mild Cognitive Impairment (MCI) and even Alzheimer's, or meningitis) occurring up to 6 weeks after surgery.

STAFF PUBLICATIONS

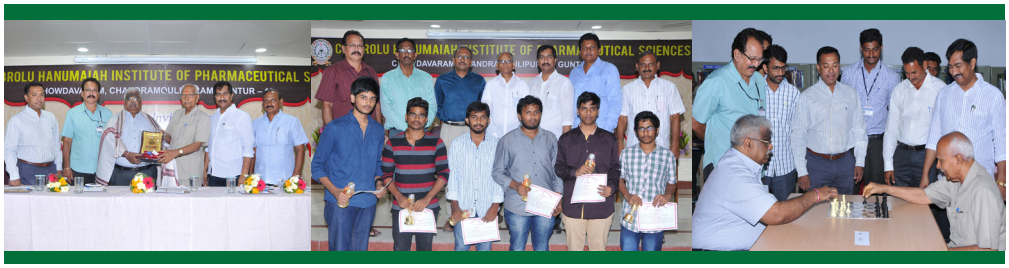
1. B. Venkateswara Rao, S. Vidyadhara, and M. V. Basaveswara Rao. A Novel stability indicating RP-HPLC method development and validation for the determination of valsartan and hydrochlorthiazide in bulk and pharmaceutical formulations. Indian Drugs, 54(08), August 2017.
2. S. Vikas, M. Ramesh, N. Vanitha Rani, P. Thennarasu and G. Kannan. Incidence of Diuretics Induced Adverse Drug Reactions in an Intensive Cardiac Care Unit of a Tertiary Care Teaching Hospital. International Journal of Pharmaceutical Science and Research, IJPSR (2017); Vol. 8(8): 3557-3562.
3. VidyadharaSuryadevara, SasidharReddyvallamLankapalli, Lakshmi HarikaDanda, VijethaPendyala, VijethaKatta. Studies on jackfruit seed starch as a novel natural superdisintegrant for the design and evaluation of irbesartan fast dissolving tablets. Integrative Medicine Research, 6 (2017) 280–291.
4. B. Venkateswara Rao, P. Vijetha, S. Vidyadhara, K. Kavitha. A Novel RP-HPLC Method Development and Validation for the Determination of Pioglitazone and Glimepiride in Bulk and Pharmaceutical Formulations. Asian Journal of Pharmaceutical Analysis. 2017; 7(3): 145-150.
5. Vineela Satuluri, Vidyadhara Suryadevara, Vijetha Pendyala, Narasimhareddy M. Evaluation of ex vivo Thrombolytic Activity and in vitro Anti-inflammatory Activity of Thespesiapopulnea Leaf Extract. International Journal of Pharmaceutical Sciences and Drug Research. 2017; 9(5): 263-267.
6. R.L.C. Sasidhar, Sreelakshmi. M, Raviteja. B. RP- HPLC Method for Simultaneous Estimation of Meropenem and Vaborbactam in Bulk Samples. International Journal of Medical Science and Innovative Research, 2, 5, 2017, 361 – 367.
7. R.L.C. Sasidhar, Sreelakshmi. M, Raviteja. B. Reverse Phase-HPLC Method for Simultaneous Estimation of Tetracaine and Oxymetazoline in Bulk Samples. J. Pharm. Sci. & Res. Vol. 9(9), 2017, 1589-1594

Prizes Won By CHIPS Students At 9th National IPA Students Congress - 2017, Rajahmundry (02-03/09/2017)

I B. Pharmacy And I Pharm. D Classwork Inauguration - 2017 (06/09/2017)

IPA Sponsored Three Day Workshop On "Problem Based Teaching And Learning Of Organic Chemistry And Analytical Chemistry" Module - II (07-09/09/2017)

A.N.U Inter-Collegiate Chess (Men & Women)Tournament - 2017 (22-23/09/2017)



Health Awareness And Door To Door Campaigning In Various Villages Organized By CHIPS (24/09/2017)

Health Awareness Walk (From research to healthcare - Your Pharmacist is at your service) Organized by CHIPS (25/09/2017)

We are Glad to Receive your Feedback to chipsregimen@gmail.com

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