Medical News

DOI: https://doi.org/10.70302/jpsim.v2i3.2161

'Quadpill' Bests Monotherapy for Initial BP Lowering: QUARTET

September 03, 2021

A "quadpill" containing quarter doses of four blood pressure (BP)-lowering medications was more effective than monotherapy for initial treatment of hypertension, with similar tolerability, in the 1-year, phase 3 QUARTET randomized, active-control trial.

Clara Chow, MD, PhD, academic director of the Westmead Applied Research Centre, University of Sydney, Australia, presented the findings in a late-breaking trial session at the European Society of Cardiology (ESC) Congress 2021. The study was simultaneously published in The Lancet.

The primary outcome, mean unattended office BP at 12 weeks, dropped from 142/86 mm Hg to 120/71 mm Hg in patients who received the daily quadpill — a capsule containing irbesartan, amlodipine, indapamide, and bisoprolol — and fell from 140/83 mm Hg to 127/79 mmHg in patients who received a daily full dose of irbesartan.

This 6.9 mm Hg greater drop in systolic BP at 12 months is clinically meaningful, Chow told theheart.org| Medscape Cardiology. "If maintained, it would be expected to confer about a 15% to 20% reduction" in heart disease, stroke, and heart failure.

In the SPRINT study, she noted, the final systolic BP was 120 mm Hg in the intervention group and 134 mm Hg in the control group, and the difference was associated with a 27% reduction in the composite cardiovascular (CV) outcome.

The results of QUARTET suggest that "even in those with stage 1 hypertension, we can safely reduce BP to a significant degree by this simple approach, compared to usual care," Salim Yusuf, MD, DPhil, a long-time advocate of a polypill approach, told theheart.org | Medscape Cardiology in an email.

Importantly, Chow pointed out, at 12 months, 81% of patients treated with the quadpill versus 62% of patients treated with monotherapy had BP control (< 140/90 mm Hg). Patients who received monotherapy did not "catch up," even though a higher percentage received stepped-up therapy.

The quadpill dosing strategy aligns with the latest 2018 ESC/European Society of Hypertension guidelines, which recommend starting antihypertensive treatment with more than one drug, session co-chair Thomas Kahan, MD, PhD, Karolinska Institute, Danderyd Hospital, Department of Clinical Sciences, Stockholm, Sweden, commented.

WHO Seeks COVID-19 Vaccines for Poor Nations, 'Not Empty Promises'

September 09, 2021

The World Health Organization on Wednesday said low-income countries were ready to run effective COVID-19 vaccination campaigns and it was now down to manufacturers and rich countries to deliver the pledged doses to ease global health inequalities.

About 80% of the 5.5 billion vaccines doses that have been administered globally went to high and upper-middle income countries, WHO Director-General Tedros Adhanom Ghebreyesus told a news briefing on Wednesday.

"We have heard excuses from manufacturers and some high income countries about how low income countries cannot absorb vaccines," Tedros said, adding almost all low income countries have demonstrated an ability to run large-scale immunisation campaigns for polio, measles and other diseases.

"Because manufacturers have prioritised or been legally obliged to fulfil bilateral deals with rich countries willing to pay top dollar, low-income countries have been deprived of the tools to protect their people," he said.

WHO has set a target to enable every country to vaccinate at least 40% of the population by the end of this year and Tedros said deliveries to poorer nations need to be boosted for this to be achieved.

More than 221 million people have been reported to be infected by the coronavirus globally and 4.76 million have died, according to a Reuters tally.

The global programme providing COVID-19 vaccines to poor countries is on course to fall nearly 30 percent short of its previous goal of 2 billion shots this year, the international organisations running it said.

The head of the GAVI Vaccine Alliance, among the sponsors of the COVAX vaccine-sharing facility, blamed the cut on a range of factors including export restrictions on the Serum Institute of India (SII) as well as on manufacturing problems.

Tedros said ministers of the 20 richest nations had

assured him they would do everything to achieve the 40% target this year.

"Now is time for true leadership, not empty promises," he added.

Walking 7000 Steps per Day May Reduce Mortality Risk

September 09, 2021

For middle-aged individuals, walking at least 7,000 steps per day may reduce mortality risk up to 70%, based on prospective data from more than 2,000 people.

Findings were consistent regardless of race or sex, and step intensity had no impact on mortality risk, reported lead author Amanda E. Paluch, PhD, of the University of Massachusetts Amherst, and colleagues.

"In response to the need for empirical data on the associations of step volume and intensity with mortality in younger and diverse populations, we conducted a prospective study in middle-aged Black and White adults followed up for mortality for approximately 11 years," the investigators wrote in JAMA Network Open. "The objectives of our study were to examine the associations of step volume and intensity with mortality overall and by race and sex."

Steps per Day Is Easy to Communicate Paluch noted that steps per day is a "very appealing metric to quantify activity," for both researchers and lay people. "Steps per day is simple and easy to communicate in public health and clinical settings," Paluch said in an interview. "Additionally, the dramatic growth of wearable devices measuring steps makes it appealing and broadens the reach of promoting physical activity to many individuals. Walking is an activity that most of the general population can pursue. It can also be accumulated throughout daily living and may seem more achievable to fit into busy lives than a structured exercise session."

The present investigation was conducted as part of the Coronary Artery Risk Development in Young Adults (CARDIA) Study. The dataset included 2,110 participants ranging from 38-50 years of age, with a mean age of 45.2 years. A slightly higher proportion of the subjects were women (57.1%) and White (57.9%).

All participants wore an ActiGraph 7164 accelerometer for 1 week and were then followed for death of any cause, with a mean follow-up of 10.8 years. Multivariable-adjusted Cox proportional hazards models included a range of covariates, such as smoking history, body weight, alcohol intake, blood pressure, total cholesterol, and others. Step counts were grouped into low (less than 7,000 steps per day), moderate (7,000-9,999), and high (at least 10,000 steps per day) categories.

Compared with individuals who took less than 7,000 steps per day, those who took 7,000-9,000 steps per day had a 72% reduced risk of mortality (hazard ratio, 0.28; 95% confidence interval, 0.15-0.54). Going beyond 10,000 steps appeared to add no benefit, based on a 55% lower risk of all-cause mortality in the highly active group, compared with those taking less than 7,000 steps per day (HR, 0.45; 95% CI, 0.25-0.81).

Positive Topline Results for Novel Parkinson's Treatment

September 08, 2021

Topline results from a study that tested two lead structurally targeted allosteric regulator (STAR) compounds — GT-02287 and GT-02329 — are promising for the treatment of Gaucher disease (GD) and GBA1-associated Parkinson's disease (PD).

"The topline data demonstrates that our STARs compounds open a new potential approach for direct treatment of GBA1 Parkinson's disease by guiding misfolded forms of the GCase enzyme to their proper shape and restoring enzymatic activity," Manolo Bellotto, PhD, general manager at Gain Therapeutics, said in a news release.

"This is an exciting validation of our platform technology and a promising potential therapeutic opportunity for patients suffering from these debilitating diseases," Bellotto said.

The GBA1 gene encodes gluco cerebrosidase (Gcase), a lysosomal enzyme. Mutations in the GBA1 gene are among the most commonly known genetic risk factors for the development of PD and related synucleinopathies.

GBA1 mutations also cause GD, a rare autosomal storage disorder. Mutations may lead to the degradation of the protein, as well as disruptions in lysosomal targeting and diminished performance of the enzyme in the lysosome.

Patients with GD are at increased risk of developing PD and dementia with Lewy bodies.

"Our laboratory is using human induced pluripotent stem cells (iPSC) derived from patients with GD and GBA-associated Parkinson's disease to test the efficacy of the two lead STAR chaperones developed by Gain Therapeutics," lead investigator Ricardo Feldman, PhD, with the University of Maryland School of Medicine, Baltimore, Maryland, said in the news release.

The studies using iPSC-derived cortical and dopaminergic neurons from patients with neuronopathic GD demonstrate that these compounds increase the levels of GCase protein, its transport to the lysosome, and its enzymatic activity, Feldman noted.

In dopaminergic neurons, the two compounds also decrease the levels of α-synuclein-p129, "demonstrating

their potential to treat GBA1-associated Parkinson's disease," he added.

"These data are extremely exciting, as it further demonstrates the potential of GT-02287 and GT-02329 and expands the body of evidence supporting our site-directed enzyme enhancement therapy (SEE-Tx) drug discovery platform," said Gain CEO Eric Richman.

"These encouraging results show promise for this approach to correct dysfunction in the GBA1 pathway, a leading target for Parkinson's drug development," Marco Baptista, PhD, vice president of research programs for the Michael J. Fox Foundation, said in the release.

"We look forward to hearing more on next steps to advance these potential therapies further in testing and closer to patients whose greatest unmet need is a treatment to slow or stop disease progression," Baptista said.

Gain Therapeutics plans to present complete results from the study of GT-02287 and GT-02329 at the upcoming Michael J. Fox Foundation Innovating From Drug Discovery to the Clinic: Novel Approaches to PD Therapeutic Development webinar.

The company also anticipates launching studies of the two compounds that will support an investigational new drug application for GD and PD later this year.

PSIM News Corner

Pakistan Society of Internal Medicine (PSIM) conducted an on-line course of hypertension (PSIM-HC-2021) from 23rd May to 5th September 2021. The course covered all important aspects of hypertension. It was attended by approximately 250 young physicians from all over the country and by some from abroad. In the last session Prof. Javed Akram, president PSIM delivered a state-of-the-art lecture on Hypertension 2021 and beyond. Prof. Aziz-ur-Rehman presented a summary of excerpts taken from all the presentations and presented with attributes to the original speaker. The same is being prepared as a small booklet to be distributed to all attendees. It will also be available free of cost to whoever wants it. This small booklet will be particularly useful for those who attended the course but also be useful for those who could not attend. The faculty consisted of 10 international and 20 national authorities on hypertension. The names and messages in this booklet appear as per scientific programme and not in any order of seniority. The faculty of the course is given below.

Gen. Muhammad Aslam	Prof. Neil Poulter
Prof. Daniel T Lackland	Prof. Ian Wilkinson
Prof. Munir Azhar	Prof. Masood Sadiq
Prof. George Stergiou	Dr. Sidrah Latif
Prof. Aziz-ur-Rehman	Prof. M. Naeem Kasuri
Prof. Saulat Siddique	Prof. Alta Schutte
Prof. Tariq Waseem	Prof. Aizaz Mand Ahmad
Dr. Fibhaa Syed	Prof. Imran Hasan Khan
Prof. M. Hafeezullah	Prof. Maciej Tomaszewski
Prof. Aamir Shaukat	Dr. Fady H. Shmouni
Dr. Somia Iqtadar	Prof. Khurshid A. Khan
Prof. Thomas Unger	Dr. Umar Farooq
Prof. Shahbaz Kureshi	Prof. Xin-Hua Zhang
Prof. Sajid Abaidullah	Prof. Javed Akram
Bilal S. Mohydin	

ASCVD Prevention Course by PSIM

Pakistan Society of Internal Medicine (PSIM) in collaboration with World Heart Federation (WHF) and department of public health University of Health Sciences (UHS) Lahore is offering an online certificate course on Prevention of Atherosclerotic Cardiovascular Diseases (ASCVD). This course is designed to equip primary care physicians to screen individuals at risk, advise lifestyle modifications, and to make evidence based therapeutic interventions to prevent ASCVD.

The Course director Prof. Tariq Waseem and PSIM team has assembled a highly qualified and experienced faculty from leading Internists, Cardiologists, Endocrinologists, and Public Health Specialists from across the Globe. Presentations and panel discussions will focus on early identification of people at risk of ASCVD and primary prevention strategies through lifestyle modification and pharmacologic intervention where needed.

PSIM is joined by Pakistan Cardiac Society (PCS), Pakistan Hypertension League (PHL), and Aspirin Foundation of Pakistan. President WHF Prof. Fausto J Pinto will deliver a state-of-the-art lecture titled “The role of WHF in promoting global cardiovascular health” in the last session on 30th October 2021,

ASCVD prevention course is scheduled as five weekly Sessions of 90 minutes each on every Saturday of October 2021 at 02.30 pm. It will be delivered live on Zoom, Facebook, and You Tube and is offered free to the registered participants. Each session will be followed by online assessment. The course is accredited by UHS and endorsed by WHF.

2nd International Conference at Islamabad from 30th, 31st July & 1st August 2021

Pakistan Society of Internal medicine has got recognized itself as a force and has swept the country with reforms in health care and medical education. Second International Conference was successfully held at Marriott Islamabad on 30th, 31st & 1st August 2021. SOPs for the prevention of COVID-19 were strictly implemented throughout the conference and only fully vaccinated were allowed to attend the conference.

It was very well organized event with comprehensive program that reflected the slogan of this conference, "Adopt Evidence Based Medicine" The event was gathering of experts from across the globe.

2nd International conference at Islamabad

On 29th August public seminar was held in which patient's right, COVID-19 and hypertension, were discussed in detail, 50-60 people belonging to general public attended the seminar being conducted by Prof. Javed Akram, Prof Aziz-ur-Rehman, Prof. Aftab Mohsin and Dr. Somia Iqtadar.

The conference was inaugurated by President of Islamic Republic of Pakistan his highness Dr. Arif Alvi on 30th July 2021.

After inauguration very successful meeting of Vice Chancellors were held for International recognition of University degrees at large was discussed.

Fellowship convocation of PSIM was held in which degrees were awarded to the eligible fellows in addition 2 honourary degrees to distinguished doctors in recognition of their extraordinary services to the medical profession.

State of art Presidential lecture was delivered by Prof. Javed Akram.

Main scientific program started from second day and concluded on third day during which twenty speakers from across the globe presented their state of art presentations, during whole conference attendance was remarkable.

PSIM Executive Council and Executive committee's meeting on PSIM vision 2030 decided to continue making more efforts for journal until it becomes an Impact Factor journal. It was also decided to organize post graduate training courses in different medical colleges. It was also proposed to extend PSIM foundation.

PSIMRA and best poster presentation awards were distributed among first three winners.

Annual General Body meeting approved the amendments in the constitution of PSIM proposed by Executive Body.

Stall of Journal Pakistan Society of Internal Medicine was also functional along with its newly designed website on display. Journal was distributed among all the participants and speakers of conference.

PSIM by holding this International conference during COVID times provided internists to exchange knowledge and they socialized with each other and now it is established fact that internal medicine is the back bone of all medical disciplines and specialties. This conference will prove to be a milestone in achieving the lost glory of internal medicine.

Pictorial Presentation of 2nd International Conference at Marriot Islamabad