

IJGC

INDIAN JOURNAL OF GERIATRIC CARE

SEP-DEC 2021, VOL. 10 NO 3



HIGHLIGHTS

Hypoglycemia in Elderly Diabetics •

Vaccination •



With Best Compliments From

Dr. Satish Gulati

M.D.F.I.C.P., F.I.A.M.S., F.G.S.I.
Consultant Physician & Geriatrician
Cell: +91-9812026168

Dr. (Mrs.) Rita Gulati

M.D., D.G.O., F.I.A.M.S.
Consultant Obstetrician &
Gynaecologist
Cell: +91-9896342097

Dr. Dishant Gulati

M.B.B.S. M.D. (Medicine)
Consultant Physician
(Former Assistant Professor SGT Medical College,
Budera (Gurgaon)
Cell: + 91-8930198124

Ms. Divya Gulati

Computer & Administration In-Charge
Cell: +91-9996233397



Bharat Nursing Home

Sonipat Road, Rohtak-124001, Haryana

Equipped with Gynae, Internal Medicine, Pediatric,
Sonography, Biochemistry, I.C.U. & Psysiotherapy Services

Ph: 01262-256955, 01262-313955, 09315507729

EDITOR IN CHIEF

Dr. O. P. Sharma

ASST. EDITORS

*Dr. Vivek Handa, Dr. J. K. Sharma, Dr. Mohit Sharma,
Dr. Anil K. Manchanda, Dr. Puneet Khanna*

ASSOCIATE EDITORS

Dr. Anand P Ambali, Dr. Sachin Desai

DESK EDITOR

Dr. B. B. Gupta

MEMBERS

*Dr. P.S. Shankar, Dr. V. K. Arora, Dr. B. C. Bansal, Dr. Vinod Kumar, Dr. K. Satyanarayana, Dr. Satish Gulati, Dr. M.V. Jali, Dr. S. N. Gaur, Dr. M.S. Sridhar,
Dr. M.E. Yeolekar, Dr. H.L. Dhar, Dr. S. R. Iyer, Dr. N.S. Neki, Dr. Agam Vora & Dr. Prabha Adhikari*

NATIONAL ADVISORS

*Dr. Ashok Seth , Dr. Viveka Kumar, Dr. Ambrish Mithal, Dr. Anup Mishra, Dr. Ashish S. Contractor, Dr. Ashish Sharma,
Dr. Ashok Kumar Das, Dr. Avdhesh Sharma, Dr. Chand Wattal, Dr. Col. Ashutosh Ojha, Dr. G. P. Dureja, Dr. G. P. Singh, Dr. H. K. Chopra, Dr. Indumati
Ambulkar, Dr. J. Balachander, Dr. J. J. Kattakayam, Dr. J. C. Suri, Dr. Garima Handa, Dr. K. M. Mohan Das, Dr. Lalit Verma, Dr. M.V. Padma,
Dr. N. K. Bohra, Dr. Nidhi Dhawan, Dr. Nimish Shah, Padma Mallika Khanna Hazra, Dr. Praveen Chandra, Dr. R. S. Gupta, Dr. H. K. Rao, Dr. Rajeev
Sood, Dr. Raju Vaishya, Dr. Ramneek Mahajan, Dr. S.K. Wangnoo, Dr. Sajith Kumar, Dr. Sameer Srivastava, Dr. Sanjay Wadhwa, Dr. Sanjeev Lalwani,
Dr. Sanjeev Saxena, Dr. Sanjiv Kandhari, Dr. Shoaib Padaria, Dr. Suneeta Mittal, Dr. U. Ramakrishna, Dr. U. K. Mishra, Dr. Amit Gupta, Dr. Kaushik
Ranjan Das, Dr. Anita Basavaraj, Dr. Sajesh Asokan, Dr. Anita Nambiar, Dr. Sandeep P. Tamane & Dr. Ved Chaturvedi*

INTERNATIONAL ADVISORS

Dr. Vijay Sood, Dr. G. R. Sethi, Dr. B. K. Mondal – UK, Dr. Sunil Kaul, Dr. Renu Wadhwa – Japan, Dr. Arvind Modawal – USA

Subscription Information:

Indian Journal of Geriatric Care is published three times a year.

DELENG/2012/42798 Dt. 12 June 2012, Price Rs. 20 Per Copy

Annual subscription for Journal, all flyers and circulars Rs: 1000.00 (One Thousand Only) for India; for other countries US \$ 40. The journal is dispatched within India by surface mail and to other countries by sea mail.

Copyright and Photocopying:

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including, photocopy without written permission from the Editor in Chief.

Business Correspondence:

Enquires concerning subscription, advertisement, etc, should be addressed to Dr.O.P.Sharma, Editor-in- Chief , IJGC, K-49 Green Park Main New Delhi 110016.
Tel: 9810627346. Email : opsharma.gsi@gmail.com

Edited, printed and published by:

Dr. O.P. Sharma, for The Geriatric Society of India, K-49 Green Park Main, New Delhi-110016.

The Editor disclaims any responsibility or liability for statements made and opinion expressed by authors or claims made by advertisers.

Advertorial Enquiry:

Dr. O.P. Sharma, Editor-in- Chief, IJGC, K-49 Green Park Main, New Delhi-110016. Tel: 9810627346. Email : opsharma.gsi@gmail.com

Printed at Modest Graphics (P) Ltd, C-53, DDA Sheds, Okhla Phase-I, New Delhi, India.

Guest Editorial

Digital Consultation for Elderly during Covid-19 Pandemic

P.S. Shankar27

Review Article

Hypoglycaemia in Elderly Diabetes

M.V. Jali29

Review Articles

Vaccination

Puneet Khanna38

GSI News

Honorific Gerias42

Congratulations46

News from Dharwad48

News from Vijayapura48

News from Belgavi50

News from Kolkatat50

News from Kolhapur52

News from Bagalkot52



Dr. P. S. Shankar

Emeritus Professor of Medicine, Senior CEO
KBN Hospital, Kalaburagi, Karnataka



Digital Consultation for Elderly During Covid-19 Pandemic

Covid-19 pandemic in the country during the last 2 years (2020 and 2021) has made face-to-face consultation with physician difficult. The lock-down, night curfew, week-end curfew have made it difficult for patients to visit the clinic or the hospital and meet the doctor physically to make consultation about their ailment. The physician is not able meet the patient and talk with them. During this physical barrier, patients including elderly patients have begun to make contact with the physician through a telephone, mobile phone, WhatsApp, text message, video or email. This has enabled the patient, to talk with the practitioner or physician, or send SMS messages or even make a video consultation and get advice for their ailments to relief.¹ Such communication can also be established through email, or an online portal referred to as e-consultation.

This remote consultation technology to which the elderly patients in our country are not familiar and they are finding difficulty as they are not used to such aids. However, a small proportion of the elderly try to consult over telephone. They are not trained to use other devices and have been put into great difficulty during Covid-19 pandemic. However, the number of people utilising telephone for consultation, is slowly increasing in our country in recent months. The pandemic has put restrictions on mobility and physical meeting with the doctor and people are getting familiar with the digital consultation. The same can't be said about elderly as they are not familiar with the aids. The Covid-19 pandemic has accelerated the move for remote consultation in practice.

In order to reduce contagion of COVID-19, UK general practices implemented predominantly remote consulting via telephone, video or online consultation platforms. In a longitudinal observational quantitative analysis, Murphy and co-workers found a favourable opinion on remote consultation.² They focussed on older patients, shielding patients, and patients with poor mental health. The results showed that telephone consultation was sufficient for many patient problems. Video consultation was used more rarely. Many people preferred SMS-messaging. The investigators concluded that remote consultation was successful and reduced the chance of contagion to spread. However, General Practitioners who participated in this study found such consultation to be more time consuming, clinically challenging, and less satisfying. Still majority



of General Practitioners in UK have adopted to digital health technologies and they have recognised that remote monitoring will be important to the future of medicine.

It is heartening to see that patients have shown a willingness to use digital health tools as they have seen the utility of remote consultations after their experience during Covid-19.³ In a survey in UK, 64% of patients still preferred in-person consultations as they are concerned about privacy and monitoring with digital tools.³

The theme for 2021 International Older person's day was 'Digital equity for all ages'. Digitalization has brought out lot of changes in our lives. However, the elderly persons are finding it difficulty in using the modern digital technologies. This has deprived many of them to get benefit from these technologies. Thus, there is need to train them about use of mobile phones, the internet and computer. In the recent years many of them have developed interest in mobile phones and are using it for many purposes including medical consultations.

Though there are many technical issues, telehealth is appropriate to minimize the risk of Covid-19 transmission. It prevents direct physical contact. Continuous care is possible by following the advice of the care-giver. It has the advantage of reducing the morbidity and mortality in Covid-19 pandemic. It has the dual advantage of keeping the patients and their physicians' safe during the outbreak of Covid-19. The tele-technology has provided the patients the way to minimize the hazard of direct exposure from person-to-person.

The slowing down of the transmission of the Covid virus is by social distancing and it is made possible by reduction of person-to-person contact.⁴ Elderly persons and persons with co-morbidities should get their advice without the risk of exposure to other patients in the hospital. Digital consultation has opened a new vista for patients to get quick advice regarding their health and ill-health. Use of digital technology protects both patients and physicians.

References

1. Evans M. COVID-19 coronavirus: what to do if you need to see a GP or get medication. 2020. <https://patient.info/news-and-features/covid-19-coronaviruswhat-to-do-if-you-need-to-see-a-gp-or-get-medication> (accessed 30 Dec 2021).
2. Murphy M, Scott LJ, Salisbury C, Turner A, Scott A, Denholm R, Lewis R, Iyer G, Macleod J, Horwood J. Implementation of remote consulting in UK primary care following the COVID-19 pandemic: a mixed-methods longitudinal study. *Brit Jour Gen Prac*, 2021 March, e166-e177.
3. Monaghesh E, Hajizadeh A. The role of telehealth during COVID-19 outbreak: a systematic review based on current evidence. *BMC Public Health* 2020; 20 article no. 1193, accessed on 31 Dec 2021.
4. Hollander JE, Carr BG. Virtually perfect? Telemedicine for covid-19. *N Engl J Med* 2020. <https://doi.org/https://doi.org/10.1056/NEJMp2003539>.

Hypoglycaemia in Elderly Diabetics

M.V. JALI*

Abstract:

Hypoglycaemia is a common, under-recognised and under-reported complication in older diabetics. In addition, the co-morbidities associated with advanced age make the older diabetic more susceptible to hypoglycemia-associated complications. A blood glucose level of 20 mg/dL (1.1 mmol/L) often leads to an emergency condition known as the hypoglycemic coma. Furthermore, severe hypoglycaemia for prolonged periods also results in neurological disorders. In addition, the autoregulatory responses of an individual decrease with advancing age. It often leads to misdiagnosis of hypoglycaemia as transient ischemic attacks or other cerebrovascular events. Severe hypoglycemia also impacts brain function, which leads to seizures, neuroglycopenic symptoms, and even death. The use of personalised treatment modalities for such diabetics decreases the risk of hypoglycaemia.

INTRODUCTION

The proportion of the elderly population has been increasing all over the world. In the last five decades, the number of individuals over 60 years (elderly individuals) has tripled. The 2011 census revealed that older individuals account for 8.14% of the total population.¹ The elderly population is highly susceptible to diabetes and its complications. At least 20% of the elderly population suffers from diabetes; this incidence rate is expected to increase further. Compared to non-diabetic elderly individuals, elderly diabetics often exhibit a higher degree of functional disabilities and susceptibility to coronary heart diseases, stroke, hypertension, common geriatric syndromes, and even premature deaths. Elderly individuals also exhibit a higher risk of Hypoglycemia, progressive renal insufficiency, and insulin deficiency. The weaker cognitive function of elderly individuals also contributes to the severity of hypoglycaemia among elderly individuals due to the inability to take self-care.

Thus, it is crucial to monitor the hypoglycemic events among elderly diabetics meticulously and personalise the treatment modalities for each.^{2,3} The risk versus benefits of tight glycemic control should be assessed. Especially for elderly diabetics, one must always weigh the benefit of A1c lowering techniques against higher hypoglycemia risk, as in these individuals, reducing the microvascular complications is less beneficial.⁴

*Medical Director & CEO, Chief Consultant Diabetologist, KLES Dr Prabhakar Kore Hospital & Medical Research Centre, Professor of Diabetology (Medicine), J. N. Medical College, KLE Academy of Higher Education & Research (Deemed to-be-university), Belagavi, Karnataka

DEFINITION

When the blood sugar reduces to below-normal levels, this condition is known as hypoglycaemia. It is associated with symptoms, such as trouble in talking, clumsiness, loss of consciousness, confusion, seizures, and even death. The symptoms of hypoglycaemia often appear relatively quickly.

Hypoglycaemia is usually diagnosed using variable parameters. For instance, a blood glucose level below 70 mg/dL (3.9 mmol/L) is diagnosed as hypoglycaemia in diabetes. In adults, low blood sugar levels at the time of exhibition of hypoglycemic symptoms and alleviation of these levels after blood sugar normalisation are also diagnosed as diabetes. The most common diagnosis of hypoglycaemia of diabetes is the blood glucose level lower than 50 mg/dL (2.8 mmol/L) post fasting or exercise. Sometimes, determining C-peptide or insulin levels is also instrumental in diagnosing diabetes.

The medications administered to diabetic individuals, including sulfonylureas and insulin, often lead to hypoglycaemia. The hypoglycaemia risk is higher in people with diabetes who consume alcohol, eat less than usual, and exercise intensely. Hypoglycaemia also arises due to tumours, kidney disorders, hypothyroidism, liver ailments, inborn errors of metabolism, consumption of drugs, and severe infections.

Hypoglycaemia is characterised by a substantial decrease in blood glucose levels, which leads to alteration in mental capabilities and a negative impact on the sympathetic nervous system. The manifestations of hypoglycaemia arise as a result of alteration in processes involved in maintaining glucose homeostasis.

AETIOLOGY AND MANIFESTATIONS

As already mentioned, different individuals exhibit hypoglycaemia symptoms at different blood glucose levels (generally <50 mg/dl). Hence, it is essential to consider the drug usage and medical history while determining the aetiology of hypoglycaemia.

The potential hypoglycaemia causes include:

- Diabetes mellitus, alcoholism, hepatic cirrhosis/failure, renal insufficiency/failure, or other endocrine diseases
- Nutritional deficiency
- Reduced weight, nausea and vomiting

Neuroglycopenic or Neurogenic

Hypoglycaemia symptoms may be classified into:

- Alterations in the central nervous system: confusion, headache, personality changes
- Somnolence and fatigue
- Neuroglycopenic symptoms: Tiredness, weakness, or dizziness; difficulty in concentrating; inappropriate behaviour (confused with drunkenness); blurred vision; confusion; and coma and death (severe cases)
- Neurogenic (adrenergic) symptoms: Shakiness, sweating, tachycardia, a sensation of hunger, and anxiety

Reactive Hypoglycemia comprises the following features:

- High incidence in insulin-resistant obese and overweight people
- Often a precursor to type 2 diabetes
- More frequently, incidents in individuals with a family history of insulin-resistant syndrome or type 2 diabetes

It is noteworthy that loss of consciousness does not indicate Reactive hypoglycaemia.

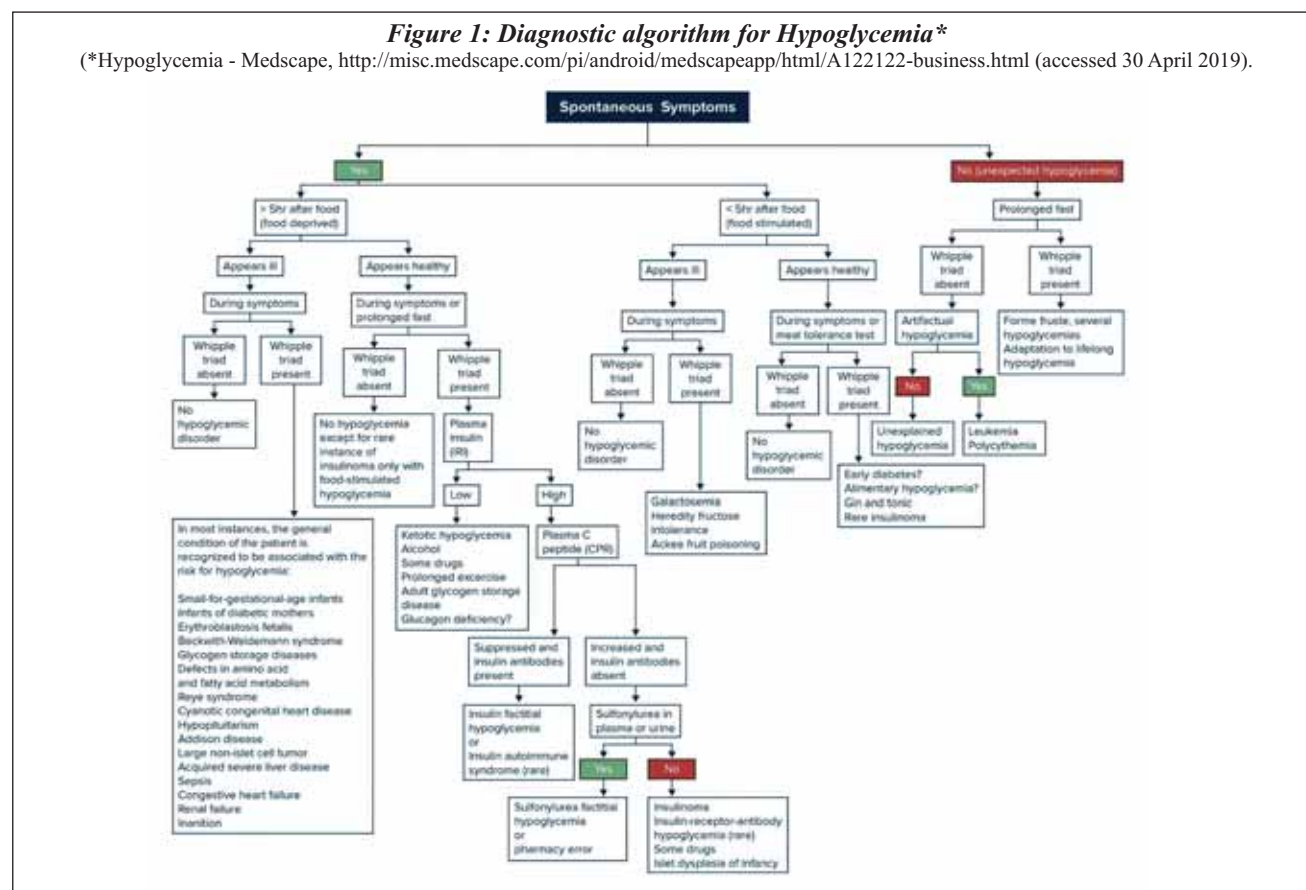
Gestational hypoglycaemia comprises the following features:⁵

- Higher incidence in young females (age < 25 years) or a preexisting medical condition
- Low incidence in females with pre-pregnancy BMI ≥ 30 kg/m²
- Associated with greater risk of eclampsia/ preeclampsia in affected females

DIAGNOSTIC ALGORITHM:^{6,7}

Often, a systematic algorithm is warranted to determine hypoglycemia aetiology.

The duration between ingestion of a meal and symptom onset



is essential while diagnosing hypoglycemia. Fasting hypoglycaemia generally arises before eating anything in the morning or the afternoon in case of delayed or missed meals. Furthermore, postprandial hyperglycemia develops about 2-4 hours post-eating, mainly if meals comprise high levels of simple carbohydrates. Postprandial symptoms usually arise owing to reactive causes; however, some insulinoma patients also exhibit postprandial symptoms. Feil et al. also reported high hypoglycaemia risk in individuals with cognitive impairment and dementia.⁶

PHYSICAL ASSESSMENT

As already discussed, the physical manifestations of hypoglycaemia are non-specific. They are usually associated with autonomic and central nervous systems. One would need to examine vital signs of tachypnea, hypothermia, tachycardia, bradycardia (neonates), and hypertension. The head, eyes, ears, nose, and throat (HEENT) examination of a potential hypoglycaemia patient may indicate blurred vision, dilated pupils, icterus, and parotid pain. Neurologic symptoms comprise confusion, coma, fatigue, agitated or combative disposition, loss of coordination, stroke syndrome, convulsions, tremors, and diplopia. Cardiovascular issues include dysrhythmias, tachycardia (bradycardia in neonates), hypotension, and hypertension.

Respiratory issues include tachypnea, dyspnea, and acute pulmonary oedema, while gastrointestinal problems include dyspepsia, abdominal cramping, and nausea and vomiting. Furthermore, the patient's skin might be warm and diaphoretic or exhibit dehydration with reduced turgor.

DIAGNOSTIC CONSIDERATIONS: OLDER ADULTS (Table 1)

Since hypoglycaemia may lead to severe consequences, it is crucial to diagnose and treat this condition rapidly. Because of the effects of hypoglycaemia, the event can be devastating. An antidote is readily available; diagnosis and treatment must be rapid in any patient with suspected hypoglycaemia, regardless of the cause. Individuals with no history of hypoglycaemia should undergo the entire workup to identify the potential aetiology. In the case of diabetic patients that exhibit hypoglycaemia, special consideration is warranted, including any infection, novel treatment modality, etc. Such individuals also suffer from spontaneous and brief hypoglycemic episodes many hours post-meals.

For the examination of hypoglycaemic patients, one must take into account the following parameters:⁶

- Hepatic disorders

- Cardiac dysrhythmia
- Transient ischemic attacks
- Endocrine disorders
- Hypoglycemic agents
- Substance abuse (including cocaine, ethanol, salicylates, beta-blockers, pentamidine, etc.)
- Nutritional disorders
- Autoimmune disorders
- Psychogenic factors
- Central nervous system disorders

Differential Diagnosis

- Alcoholism
- Addison's Disease
- Anxiety Disorders
- Adrenal Crisis
- Hypopituitarism (Panhypopituitarism)
- Cardiogenic Shock
- Pseudohypoglycaemia
- Insulinoma

APPROACH (INVESTIGATIONS AS NECESSARY):^{7,8}

The patient must be thoroughly examined to exclude the possibility of any concurrent ailment that might contribute to their hypoglycaemic state. Apart from infection testing, the patient must undergo tests for serum insulin levels, hepatic function and thyroid, and cortisol levels.

The remaining causes of hypoglycaemia, as shown previously, must also be investigated carefully. In case of adrenal insufficiency, the patient should be subjected to examining adrenocorticotrophic hormone (ACTH) stimulation and cortisol levels in the morning.

INSULIN AND GLUCOSE LEVELS

Hypoglycaemia patients must monitor their blood glucose levels at their homes to properly document their hypoglycemic episodes. It must be noted that the readings from glucometers are subject to errors. Hence, it is crucial to measure both insulin and glucose levels to record glucose levels corresponding to changes in insulin levels. It is also noteworthy that the blood glucose levels of patients with polycythemia rubra vera, owing to the unequal glucose distribution between plasma and erythrocytes, high degree of glycolysis in erythrocytes, or both.

ORAL GLUCOSE TOLERANCE TEST

Patients with reactive hypoglycaemia must be subjected to an oral glucose tolerance test. This test is more beneficial to assess fasting Hypoglycemia. The test must be performed for 5 hours to evaluate insulin and glucose levels simultaneously.

Table: 1 (ADA: Diabetes Care January 2015 vol. 38 no. Supplement 1 S67-S69) Ref. Footnotes

Framework To Determine Therapeutic Goals For Blood Pressure, Dyslipidemia, And Glycemia In Elderly Diabetics						
Patient features	Rationale	A1C target [‡]	Fasting or pre-prandial glucose levels (mg/dL)	Bedtime glucose levels (mg/dL)	Blood pressure (mmHg)	Lipids
Healthy (intact functional and cognitive status, few chronic illnesses)	Longer remaining life expectancy	<7.5%	90–130	90–150	<140/90	Statin unless not tolerated or contraindicated
Intermediate/complex (mild-to-moderate cognitive impairment, more than two ADL impairments, multiple chronic illnesses ^{*)})	Intermediate life expectancy, susceptible to hypothermia, high treatment burden, fall risk	<8.0%	90–150	100–180	<140/90	Statin unless not tolerated or contraindicated
Poor/very complex health (moderate-to-severe cognitive impairment, more than two ADL impairments, long-term care or end-stage chronic illnesses ^{**})	Limited life expectancy makes, uncertain outcome	<8.5% [‡]	100–180	110–200	<150/90	Consider the likelihood of benefit with a statin (secondary prevention more so than primary)

·The patient categories are general concepts. All patients do not necessarily fall into a specific group. A key component of personalised treatment is the preferences of the patients and the caregivers. It is noteworthy that the importance and health status may change with time. ADL: activities of daily living.

↵·‡ For any patient, a lower A1C target than the one recommended here can be set, provided it does not lead to severe or recurrent hypoglycemia or warrants unnecessary treatment burden.

↵·* Chronic illnesses refer to ailments that are so severe that the patient requires lifestyle management or medication to manage them. Chronic diseases include cancer, arthritis, congestive heart failure, emphysema, falls, depression, incontinence, hypertension, myocardial infarction, stroke, and chronic kidney disease (at least stage 3). “multiple chronic illnesses” refers to the patient having at least three of these ailments.⁶

↵·** An end-stage chronic illness, such as oxygen-dependent lung disease, congestive heart failure (stage 3–4), uncontrollable metastatic cancer, or chronic kidney disease that warrants dialysis, might lead to substantially severe symptoms, impaired functional status, and low life expectancy.

↵·‡ An A1C of 8.5% corresponds to average blood glucose levels of ~200 mg/dL. Lower glycemic targets may make the patients vulnerable to severe risks of dehydration, glycosuria, poor wound healing, or hyperglycemic hyperosmolar syndrome.

For the patient to test positive for this test, their symptoms should correspond to low blood sugar levels during the test.

72-HOUR FASTING PLASMA GLUCOSE

The most reliable diagnostic test for fasting hypoglycaemia comprises supervised fasting. The fasting should be sustained for either 72 hours or till hypoglycemic symptoms appear. During fasting, the patients' insulin levels should be assessed every 6 hours, along with the correlation between symptoms and lowering blood glucose levels. Also, during the fasting, the patient should be administered glucagon and glucose after blood sample withdrawal. If the patient exhibits neuroglycopenic symptoms during the fast, decrease in the plasma glucose levels to less than 2.5 mmol/L, reduction in beta-hydroxybutyrate levels to less than 45 mg/dL (2.7 mmol/L), and substantial upregulation of beta-cell polypeptides (insulin, proinsulin, and C-peptide levels), then it may indicate insulinoma. After overnight fasting, the patient starts exhibiting hypoglycemic symptoms when blood sugar levels decrease to less than 60 mg/dL (3.33 mmol/L).

C-Peptide Levels

The C-peptide levels should be investigated at the time of elevation of insulin levels. In insulinoma patients suffering from hypoglycaemia, endogenous hyperinsulinemia correlates with higher C-peptide levels. Furthermore, insulin injections in these patients result in exogenous hyperinsulinemia, which, in turn, leads to low C-peptide concentrations, which is attributed to both insulin-mediated suppression of pancreatic beta-cells and the related hypoglycaemia.

Radiologic Studies

Usually, ultrasonography and computed tomography (CT) scanning are insufficient to examine insulinomas since these tumours are microscopic. In these cases, magnetic resonance imaging (MRI) is more beneficial. In addition, selective percutaneous transhepatic venous sampling is also helpful in localising an insulinoma in the pancreas. Also, insulin-secreting lesions can be localised using selective arteriography. Octreotide scanning is also beneficial in localising insulinomas in 50% of cases.

Treatment⁸

Glucose is the mainstay of hypoglycaemia therapy. The rest of the medications are administered according to the symptoms or underlying cause (not discussed here).

Fasting hypoglycaemia

For individuals with fasting hypoglycaemia, diet therapy can

be very beneficial in alleviating the symptoms. In this therapy, regular snacks/meals with complex carbohydrates are preferred. If the patients do not benefit from diet therapy, medical care comes into play. This medical care comprises intravenous (IV) infusion of glucose. Furthermore, endogenous insulin secretion is suppressed using IV octreotide. Since physical exercise increases insulin sensitivity and burns carbohydrates, fasting hypoglycaemia patients must avoid intense physical activities. Finally, in cases where fasting hypoglycaemia is caused due to a tumour, surgical resection is the only option.

Reactive hypoglycaemia

In reactive hypoglycaemia patients, intake of refined carbohydrates should be avoided. They should increase the frequency (~6 meals per day) and reduce the size of the meals, along with avoiding simple sugars. They should also increase the intake of fiber and proteins. These patients may also benefit by administering alpha-glucosidase inhibitors (miglitol and acarbose), which reversibly inhibit membrane-bound intestinal alpha-glucoside hydrolase and pancreatic alpha-amylase. The inhibition of these enzymes delays glucose absorption lowers postprandial hyperglycemia, and alleviate Reactive hypoglycaemia.

Hypoglycaemia is usually treated by intake of dextrose or simple sugars. If oral food intake is not possible for patients, they might consider glucagon injections. A healthy diet and treatment can treat Non-diabetic hypoglycaemia of the underlying cause. Sometimes, an individual with the idiopathic postprandial syndrome is misdiagnosed to be hypoglycaemic owing to similar symptoms post-eating

Glucose Supplement

The blood glucose levels of the patient are elevated using glucose supplements.

Dextrose

It is a monosaccharide ingested orally through food and absorbed via the intestine. If it cannot be absorbed adequately via the usual route, the patient must be injected externally. It is beneficial and non-toxic when taken in low quantities. On the other hand, higher doses of dextrose lead to higher caloric intake and blood glucose levels with minimum fluid volume. It can be used for the long-term management of Hypoglycemia.

Dosage Forms and Strengths in Treatment of "Hypoglycemia"

PO: 4-20 g (single dose); repeated every 15 min if hypoglycemia persists

IV: 10-25 g (40-100 mL of 25% solution or 20-50 mL 50% solution)

American Diabetes Association proposes the “rule of 15”, which states that hypoglycemic patients should consume 15 g carbohydrates every 15 minutes until the normalisation of glucose levels.^{8,9}

Sometimes, individuals encounter severe hypoglycaemia attacks that they cannot take any glucose supplements orally. In such cases, the medical personnel may infuse dextrose intravenously, with doses varying based on ages (2 ml/kg of 10% dextrose for infants, 25% dextrose for children, and 50% dextrose for adults). Such infusions should be administered carefully as incorrect administration may lead to skin necrosis, vein sclerosis, and electrolyte disbalance. If IV access cannot be found, the individual may be injected with 1-2 mg dextrose intramuscularly. For patients with less severe hypoglycaemia and average swallowing ability, glucose may be taken orally. It is noteworthy that individuals who take acarbose or other alpha-glucosidase inhibitors exhibit a lower ability to break down starch or other sugars into monosaccharides; hence, such patients should consume honey, glucose tablets, etc., that already contain monosaccharides naturally and can ameliorate Hypoglycemia.

GLYCEMIC TARGETS AND MANAGEMENT OF HYPOGLYCAEMIA:

An A1C test is an essential tool for evaluating glycemic control and has substantial potential to predict diabetes-related complications. A1C demonstrates average glycemia

over three months.⁵

MONITORING GLYCEMIC CONTROL- A1C TESTING

A1c testing“A1c testing should be performed routinely in all patients with diabetes at initial assessment and as part of continuing care.”¹⁵

A1C glycemic goals

A1C goals for various groups of patients are listed in Table 2.¹⁵

- A1C target for non-pregnant adults is <7% corresponds to 95mg/dL (5.3 mmol/l) (A).¹⁵
- Healthcare professionals may suggest stringent A1c goals [e.g. <6.5% (4.8 mmol/l)] if possible without inducing significant hypoglycaemia or other side effects. This strategy is beneficial for patients who have been suffering from diabetes for a short period (C).¹⁵
- On the other hand, less stringent A1c targets [e.g. <8% (64 mmol/l)] must be recommended for cases with severe Hypoglycemia, severe macrovascular or microvascular complications, limited life expectancy, severe comorbidity, or diabetes. In such cases, it is often difficult to achieve the A1C target, despite self-management education, adequate glucose monitoring and effective hypoglycaemic agent doses (B).¹⁵
- Reassessment of glycemic targets over time is suggested

Figure 2: Recommendation for the routine of A1c testing¹⁵



A1c: Glycated hemoglobin, level of evidence is given in parenthesis

Figure 3: Different factors used to determine optimal A1c targets¹⁵

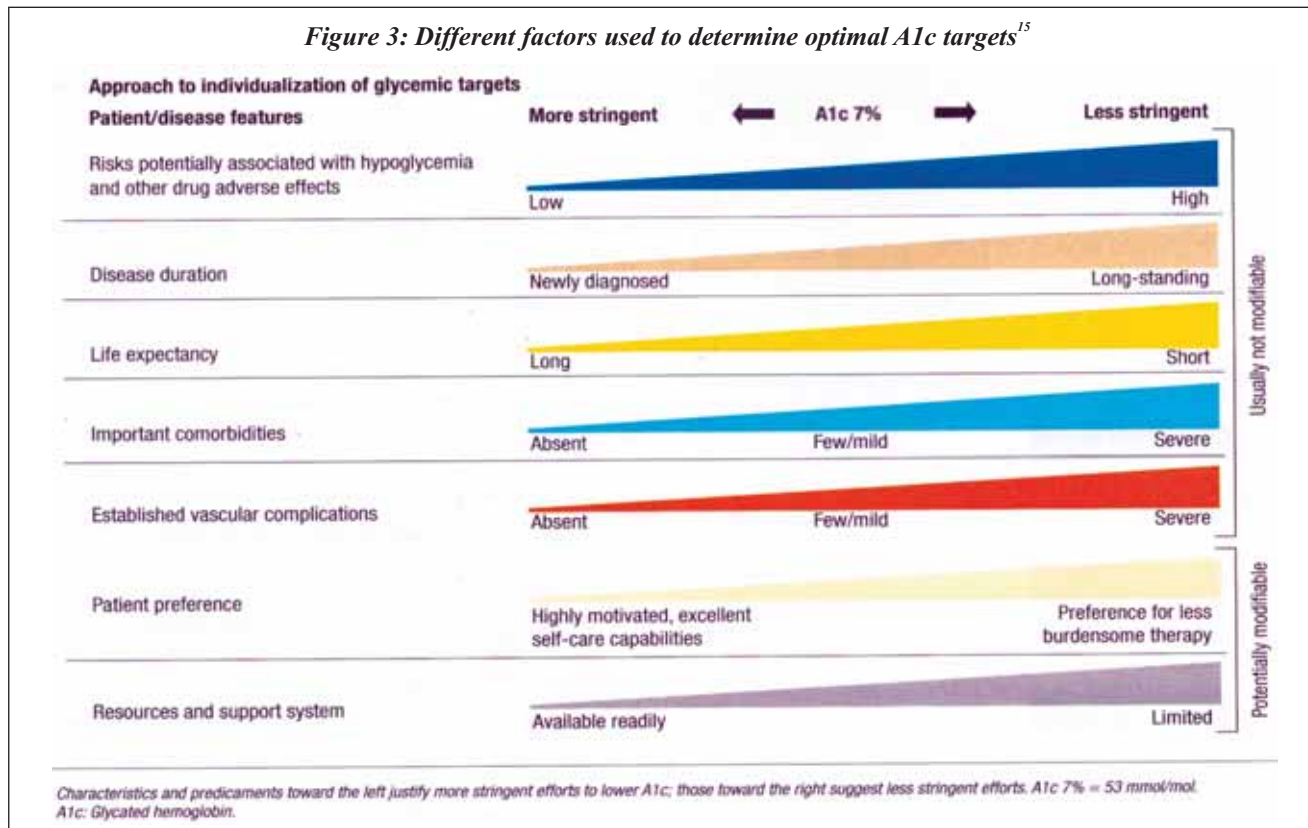


Table 2: Glycemic targets for different patient groups¹⁵

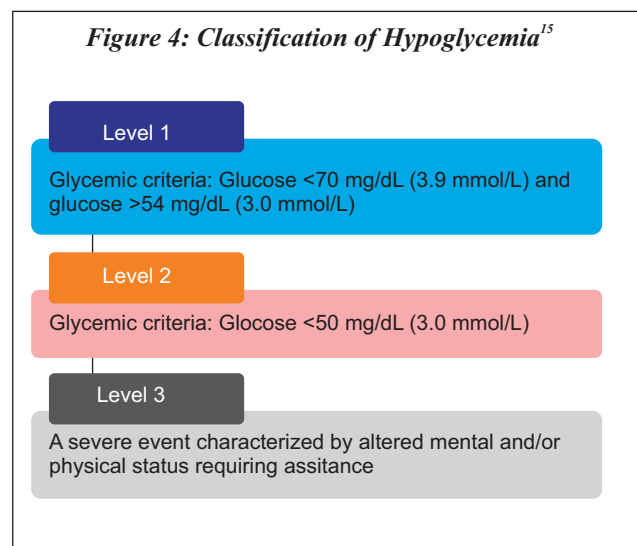
Patients groups	Patient characteristics	
Adults with diabetes	Non-pregnant	<7% (53 mmol/mol)
Older adults with diabetes	Healthy: Few coexisting chronic illnesses, intact cognitive and functional status	<7.5% (58 mmol/mol)
	Complex/intermediate: Multiple coexisting chronic illnesses* or 2+instrumental ADL impairments or mild-to-moderate cognitive impairment	<8% (64 mmol/mol)
	Very complex/poor health: LTC or end-stage chronic illnesses** or moderate-to-severe cognitive impairment or 2+ ADL dependencies	<8.5% (69 mmol/mol)
Children and adolescents	Type 1 diabetes	<7.5 (58. mmol/mol)
Pregnant women with diabetes	Normal pregnancy	<6% (42 mmol/mol); if not achieved, target may be reduced to <7% (53 mmol/mol)

*Coexisting chronic illnesses are conditions serious enough to require medications or lifestyle management and may include arthritis, cancer, congestive heart failure, depression, emphysema, falls, hypertension, incontinence, stage 3 or worse chronic kidney disease, myocardial infarction, and stroke. "Multiple" means at least three, but many patients may have five or more. **The presence of a single end-stage chronic illness, such as stage 3-4 congestive heart failure or oxygen-dependent lung disease, chronic kidney disease requiring dialysis, or uncontrolled metastatic cancer, may cause significant symptoms or impairment or functional status and significantly reduce life expectancy. **A1c or 8.5% (69 mmol/mol) equates to an estimated average glucose of ~200 mg/dL mmol/L). Looser A1c targets above 8.5% (69 mmol/mol) are not recommended as they may expose patients to more frequent higher glucose values and the acute risks from glycosuria, dehydration, hyperglycemic hyperosmolar syndrome, and poor wound healing. ADL: Activities of daily living; A1c: Glycated hemoglobin; LTC: Long-term care.

HYPOGLYCAEMIA: LIMITING FACTOR IN THE MANAGEMENT OF GLYCEMIA

- Hypoglycaemias the critical limiting factor in managing glycemia in patients with T1D and T2D.
- At each encounter, individuals with hypoglycemia risk must be interviewed regarding asymptomatic and symptomatic Hypoglycemia (C).¹⁵
- Glucose is recommended for cases with level 1 hypoglycemia; however, any form of carbohydrate can be provided to them. If Hypoglycemia persists, the treatment must be repeated after 15 min. Once the blood glucose levels normalise, the patient must carefully manage their meal intake to prevent hypoglycemia recurrence (E).¹⁵
- Glucagon is recommended for patients at risk of level 2 hypoglycemia. Hence, the family members and the caregivers must be aware of the storage location of glucagon and the time and location of its administration (E).¹⁵
- Re-evaluation of treatment regimen should be undertaken in case of unawareness regarding Hypoglycemia, or level 3 hypoglycemia occurs (E).¹⁵
- In individuals treated with insulin but are unaware of Hypoglycemia or have undergone level 2 hypoglycemia, the elevation of glycemic targets has been shown to ameliorate Hypoglycemia for many weeks and decrease the risk of future episodes (A).¹⁵
- Furthermore, the patient's cognitive function should be constantly monitored; high vigilance is recommended if cognition declines (B).¹⁵

Figure 4: Classification of Hypoglycemia¹⁵



PREVENTION:^{9,10}

People with diabetes must maintain a proper balance among their diet, exercise, and medications. It is recommended that such patients use a glucometer if they suspect a reduction in their glucose levels. Emergencies are random but essential events in the lives of patients with diabetes. A significant cause of morbidity and mortality, most emergencies are preventable by educating patients and their attendants, although some will still occur. There may be several reasons for the occurrence of stupor or coma in patients with diabetes. The most likely is Hypoglycemia, but the most serious prognostically hyperglycemia is imperative to make a diagnosis as soon as possible. Hypoglycemia coma responds promptly to simple therapy, and correct treatment must be instituted quickly to save the individuals from the crisis.

CONCLUSION¹¹⁻¹⁵

In type 2 diabetes, treatment of Hypoglycemia is integrated into global and individualised care. The primary goal of this care is to prevent a reduction in the degree of functional independence. This care takes the type of patient into account. For instance, in the case of a dependent elderly patient, the primary goal of the care is to maintain adequate comfort. Furthermore, the choice of therapeutic tools depends upon fixed goals, co-morbidities, the organisation of maintenance at home or nursing home, and the iatrogenic risk, particularly undernutrition and hypoglycemia.¹⁰ Elderly patients with type 2 diabetes are at a higher risk of developing cognitive impairment and, therefore, are in danger of being unable to self-manage their disease. To prevent further complications from type 2 diabetes, patients can self-manage their glucose levels and medication intake. However, older patients who have had diabetes for a more extended period may experience memory loss and other cognitive dysfunctions, hindering their ability to manage their disease correctly.^{11,12} The essential components of hypoglycemia care comprise referral criteria, joint working practices, rapid assessment modes, and 'outreach' to all diagnostic groups and care settings.^{14,15}

REFERENCES

1. Verma R, Khanna P. National Program of Health-Care for the elderly in India: hope for healthy ageing. International journal of preventive medicine. 2013; 4(10):1103.
2. James PA, Oparil S, Carter BL, et al. 2014 evidence-based guideline for managing high blood pressure in adults: a report from the panel members appointed to the Eighth Joint National Committee (JNC 8). JAMA 2014; 311:507–520
3. Laiteerapong N, Iveniuk J, John PM, Laumann EO, Huang ES. Classification of older adults who have diabetes by comorbid conditions, United States, 2005-2006. Prev Chronic Dis 2012; 9:E100

4. Alam T, Weintraub N, Weinreb J. What is the proper use of haemoglobin A1c monitoring in the elderly? J Am Med Dir Assoc. 2005 May-Jun; 6(3):200-4. 1.
5. "Hypoglycemia". National Institute of Diabetes and Digestive and Kidney Diseases. October 2008. Archived from the original on 1 July 2015. Retrieved 28 June 2015.
6. Service FJ, Cryer PE, Vella A (March 2017). "Hypoglycemia in adults: Clinical manifestations, definition, and causes". UpToDate Inc.
7. Jump up to a b c Yanai H, Adachi H, Katsuyama H, Moriyama S, Hamasaki H, Sako A (February 2015). "Causative anti-diabetic drugs and the underlying clinical factors for hypoglycemia in patients with diabetes". World Journal of Diabetes. 6 (1): 30–6. doi:10.4239/wjd.v6.i1.30. PMC 4317315. PMID 25685276.
8. <https://emedicine.medscape.com/article/122122-clinical>
9. Davis SN, Shavers C, Mosqueda-Garcia R, Costa F (August 1997). "Effects of differing antecedent hypoglycemia on subsequent counter-regulation in normal humans". Diabetes. 46(8): 1328–35. doi:10.2337/diab.46.8.1328. PMID 9231658.
10. Davidson NK, Moreland P. "Living with diabetes blog". Mayo Clinic. Archived from the original on 19 March 2012.
11. Secrest AM, Becker DJ, Kelsey SF, Laporte RE, Orchard TJ (March 2011). "Characterising sudden death and dead-in-bed syndrome in Type 1 diabetes: analysis from two childhood-onset Type 1 diabetes registries". Diabetic Medicine. 28 (3): 293–300. doi:10.1111/j.1464-5491.2010.03154.x. PMC 3045678. PMID 21309837.
12. Tanenberg RJ, Newton CA, Drake AJ (2010). "Confirmation of hypoglycemia in the "dead-in-bed" syndrome, as captured by a retrospective continuous glucose monitoring system". Endocrine Practice. 16 (2): 244–8. doi:10.4158/EP09260.CR. PMID 19833577.
13. "Collip discovers hypoglycemia". Treating Diabetes. Archived from the original on 8 September 2017. Retrieved 18 June 2017.
14. <https://en.wikipedia.org/wiki/Hypoglycemia>
15. American Diabetes Association. ADA standards of medical care in Diabetes 2019. Diabetes Care. 2019;42(Suppl 1): S1-S183



Notice for Annual General Body

Dated: 25th December 2021

The Annual General Body meeting of Geriatric Society of India will be held on Saturday 19th February 2022

at 06:15 PM onwards at the venue of 17th GSICON 2021 at Kolkata.

The following will be the agenda for the meeting:

1. Confirmation of Minutes of Last Annual General Body Meeting held at venue of GSICON 2018.
2. Matters arising.
3. Presentation of Annual Report.
4. Future Scientific Program of Geriatric Society of India.
5. Audited Accounts.
6. To finalize dates and venues of 18th International Conference of GSI (GSICON 2022).
7. Midterm Conference in 2022.
8. Geriatrics Professors - by GSI a proposal by Dr Kaushik Ranjan Das .
9. Best thesis award proposed by Dr Anand P Ambali
10. Any other matter with the permission of the chair.

All members are requested to kindly attend the meeting.

Vaccination

Puneet Khanna

PNEUMOCOCCAL VACCINE¹

INTRODUCTION

Pneumococcal infections caused by *Streptococcus pneumonia* (Figure 1) continue to be a major cause of morbidity and mortality, despite sophisticated diagnostic techniques and the availability and use of effective antimicrobials. It is also the single most important bacterial agent causing pneumonia, otitis media, sinusitis, bronchitis, and invasive pneumococcal disease (IPD) comprising of pneumonia, bacteraemia and meningitis.

VACCINES

There are two types of vaccines namely *pneumococcal polysaccharide vaccine (PPSV23)* containing long chains of polysaccharide molecules that make up the surface capsule of 23 types of pneumococci, which include 1, 2, 3, 4, 5, 6b, 7f, 8, 9v, 10a, 11a, 12f, 14, 15b, 17f, 18c, 19f, 19a, 20, 22f, 23f and 33f serotypes and PCV13, containing capsular



polysaccharides from 13 serotypes of pneumococcus (1, 3, 4, 5, 6a, 6b, 7f, 9v, 14, 18c, 19a, 19f and 23f) where bacterial polysaccharides are covalently conjugated to an immunogenic carrier protein containing nontoxic variety of diphtheria toxin.

SCHEDULE OF VACCINATION

PPSV23 is given only once as a single dose to elderly persons. PPSV is a sterile, clear, colourless liquid vaccine. One dose of (0.5 ml) of the vaccine contains 25 micrograms

Vaccine	Advantages	Disadvantages
PPSV 23	<ul style="list-style-type: none"> Long experience (licensed in 1983) Not expensive At present, relatively high serotype coverage for IPD in elderly (60-70%) Considerable efficacy proven against IPD (50-70 %) in immunocompetent elderly Cost-effective proven for elderly people even if it only prevents IPD 	<ul style="list-style-type: none"> T cell-independent immune response (IgM antibody produced, response declines in 3-5 years and no anamnestic response at revaccination) Decrease in memory B cell frequency after PPSV23 Weak immunogenicity in some individuals Unclear (null to small) efficacy against nonbacteremic pneumococcal pneumonia. No effect on nasopharyngeal carriage No efficacy demonstrated in reducing nasopharyngeal carriage No impact proven in reducing overall pneumococcal disease burden
PCV 13	<ul style="list-style-type: none"> T cell-dependent immune response (larger duration and boosting effect at revaccination) High efficacy (80-90%) against vaccine type IPD proven in children Significant efficacy against pneumococcal pneumonia (CAPiTA study) Potential efficacy in reducing nasopharyngeal carriage 	<ul style="list-style-type: none"> Short experience (approved in 2011) Expensive At present, relatively small serotype coverage for IPD in the elderly (30-40%) Future reduction of vaccination impact in adults/elderly (because of probable indirect effects from PCV13 pediatric)

*Sr Consultant & Head, Dept of Intervention, Respiratory & Sleep Medicine, Manipal Hospitals, Dwarka, New Delhi



of each capsular polysaccharide antigen dissolved in isotonic saline solution with 0.25% phenol as a preservative. Revaccination may be recommended for persons exhibiting an increased risk for pneumococcal infection and to those who are likely to have a rapid decline in pneumococcal antibody levels provided that 5 years have elapsed since getting the first dose of pneumococcal vaccine. Common adverse events reported are pain, redness and swelling at the injection site, limitation of movement of the injected arm, fatigue, headache, chills, muscle ache and joint pain. These manifestations are short-lived. PCV13 is administered in a dose of 0.5 ml intramuscularly. The preferred site is the deltoid muscle of the upper arm.

INFLUENZA VACCINE²

INTRODUCTION

Influenza or flu, is an acute, contagious viral respiratory illness, mostly ignored. Infection occurs in the upper respiratory tract; nose, throat, and at times descends to lungs. Influenza is not a common cold but much serious infection.

INDICATIONS OF VACCINATIONS

Annual vaccination against influenza is recommended vulnerable people like adults of 65 years of age and older, Pregnant women, people with asthma, COPD, heart disease (such as congenital heart disease, congestive heart failure and coronary artery disease), blood disorders (such as sickle cell disease), endocrine disorders (such as diabetes mellitus), chronic kidney disorders, chronic liver disorders, neurological and neuro development conditions [including disorders of the brain, spinal cord, peripheral nerve, and muscle such as cerebral palsy, epilepsy, stroke, intellectual disability (mental retardation), moderate to severe developmental delay, muscular dystrophy, or spinal cord injury], inherited metabolic and mitochondrial disorders, weakened immune system due to disease or medication (such as people with AIDS, cancer, or on chronic steroid therapy), morbidly obese, and long-term care facilities residents. People who live with or care for the high-risk population for complications from flu, including health care

workers, household contacts of persons at high risk for complications from the flu and household contacts and caregivers of children younger than 5 years of age with particular emphasis on vaccinating contacts of children younger than 6 months of age.

VACCINATION

Influenza vaccines are recommended for routine use by the advisory committee on immune practice (ACIP) for prevention of influenza. There are two types of vaccines: killed and live attenuated.

The live influenza vaccine (LAIV) is a trivalent vaccine containing two influenzas A strain: one H1N1 type, one H3N2 strain and one influenza type B strain (each 15mg) decided by WHO on the epidemiologic and antigenic analysis of the currently circulating strains.

Annual killed Inactivated Influenza vaccine (IIV) is available as either a trivalent or quadrivalent (four flu strains: two influenza A viruses and two influenza B viruses) and is advised to cover any mutation which the circulating virus undergoes over the time therefore seasonal influenza vaccine is prepared annually to include the most likely strain for the season. If an antigenic shift in the virus takes place, pandemic results but there is no pandemic vaccine available. Post vaccination, antibodies develop in about two weeks' time. India being in the northern hemisphere, the vaccination should be done by October, if possible and vaccination should continue as long as influenza viruses are circulating. As a matter of fact, India today has two peaks of influenza, although the virus is circulating all the 12 months of the year, 365 days of the year; the vaccine could be given any time if available. Everyone 6 months and older is recommended for annual influenza vaccination, with rare exceptions.

SCHEDULE OF VACCINATION

Trivalent or quadrivalent influenza vaccine is given only once as a single dose to elderly persons. It is available as 0.5ml liquid in prefilled syringe. This is given as intramuscular injection in the deltoid muscle.

Latest Quadrivalent Influenza vaccination is as follows:

Influenza virus (inactivated, split) of the following strains* for one 0.5 mL dose.:

- A/Victoria/2570/2019 (H1N1) pdm09 - like strain (A/Victoria/2570/2019, IVR-215) 15 micrograms HA**.

- A/Cambodia/e0826360/2020 (H3N2) - like strain (A/Tasmania/503/2020, IVR-221) 15 micrograms HA**.
- B/Washington/02/2019 - like strain (B/Washington/02/2019, wild type) 15 micrograms HA**.
- B/Phuket/3073/2013 - like strain (B/Phuket/3073/2013, wild type) 15 micrograms HA**.
* propagated in fertilised hens' eggs from healthy chicken flocks.
** haemagglutinin.
This vaccine complies with the WHO recommendations (Northern Hemisphere) and EU decision for the 2021/2022 season.
Vaccine may contain traces of eggs, such as ovalbumin, and of neomycin, formaldehyde and octoxinol-9, which are used during the manufacturing process
The vaccine, after shaking gently, is a colourless opalescent liquid.
- Excipients/Inactive Ingredients: Buffer Solution: Sodium chloride, Potassium chloride, Disodium phosphate dihydrate, Potassium dihydrogen phosphate, Water for injections.

COMMON ADVERSE EVENTS

Influenza vaccine is by and large very safe. The most common side effects of the injectable variety include soreness, redness, or swelling at the site of the injection. Less than 1% of vaccine recipients develop symptoms such as fever, chills, and muscle aches for 1 to 2 days following the vaccination.

COVID VACCINATION

Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Most people infected with the virus experience mild to moderate respiratory illness and recover without requiring special treatment. However, some become seriously ill and require medical attention. Older people and those with underlying medical conditions like cardiovascular disease, diabetes, chronic respiratory disease, or cancer are more likely to develop serious illness. The best way to prevent and slow down transmission is by staying at least 1 metre apart from others, wearing a properly fitted mask, washing hands or using an alcohol-based rub frequently and most importantly getting vaccinated.



Four types of anti – COVID vaccines are available for use in INDIA

COVISHIELD

Covishield [ChAdOx1 nCoV-19 Corona Virus Vaccine (Recombinant)], manufactured by the Serum Institute of India, is a Viral Vector-based Technology which has also been used previously to manufacture Ebola vaccine. Composition of Covishield® includes inactivated adenovirus with segments of Corona Virus, Aluminium Hydroxide Gel, L-Histidine, L-Histidine hydrochloride monohydrate, Magnesium chloride hexahydrate, Polysorbate 80, Ethanol, Sucrose, Sodium chloride, and Disodium edetate dihydrate (EDTA). The vaccine need to be stored and transported at +20 to +8° Celsius. COVISHIELD Vaccine has been approved for restricted use in emergency situation in individuals 18 years of age and older and is given as an intramuscular injection only, preferably in the deltoid muscle. The COVISHIELD vaccination course consists of two separate doses of 0.5 mL each with a gap of 12-16 week. According to the reports, the efficacy of the vaccine is 82.4% when administered in two doses.⁵

COVAXIN

Covaxin® [Whole Virion, Inactivated Corona Virus vaccine], manufactured by the Bharat Biotech, is a whole-Virion Inactivated Corona Virus Vaccine. Composition includes inactivated Corona Virus, Aluminium Hydroxide Gel, TLR 7/8 agonist, 2-Phenoxyethanol and Phosphate Buffered Saline. The vaccine need to be stored and transported at +20 to +8° Celsius. The COVAXIN vaccination course consists of two doses at an interval of 4-6 weeks and is indicated only for people aged 18 years and above. According to the latest reports, this indigenously developed COVID-19 vaccine Covaxin has an efficacy of 77.8%

SPUTNIK – V

Sputnik V, developed by Gamaleya Institute in Russia and distributed by Dr Reddy's Laboratories is composed of

replication incompetent recombinant adenovirus serotype 26 particles containing the SARS-CoV-2 protein S gene. It also has replication incompetent recombinant adenovirus serotype 5 particles containing SARS-CoV-2 protein S gene. Sputnik V requires storage temperature of -18 0 C or below. The vaccine is indicated for active immunization to prevent COVID-19 disease in individuals of ≥ 18 years of age and should be administered intramuscularly in two doses of 0.5 ml each with interval of 21 days. The vaccine is reported to be effective against the Delta B.1.617.2 and B.1.617.3 (India) strains of SARS-CoV 2019 virus. The efficacy of this vaccine is 91% [6]

ZYCOV-D

ZyCoV-D is a novel DNA plasmid-based COVID-19 vaccine indigenously developed by Cadila Healthcare, with support from the Biotechnology Industry Research Assistance Council. It is approved for emergency use in India. The vaccine can be administered for adults and children aged 12 years and above. ZyCoV-D vaccination schedule consists of 3 separate doses to be given at an interval of 28 days each (day 0, day 28 and day 56). Each dose consists of two shots of 0.1ml each given by needle-free injector (PharmaJet Tropis device) via intradermal route at two separate sites (preferably deltoid region of both the arms). The reported efficacy is 66.6% against symptomatic COVID-19 and 100% against moderate or severe disease in

its interim analysis of its phase 3 trial data.

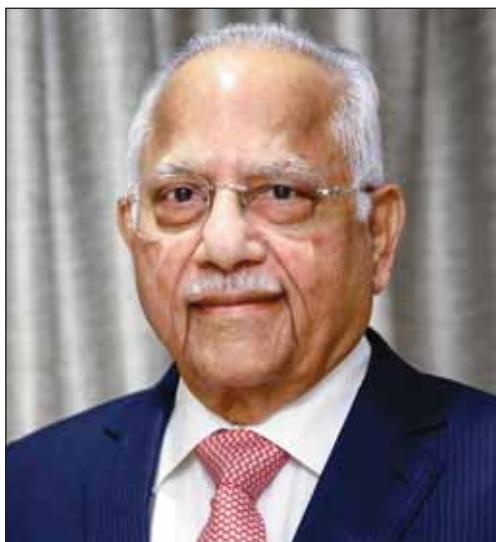
REFERENCES

1. Vadlamudi NK, Parhar K, Altre Malana KL, Kang A, Marra F. Immunogenicity and safety of the 13-valent pneumococcal conjugate vaccine compared to 23-valent pneumococcal polysaccharide in immunocompetent adults: A systematic review and meta-analysis. *Vaccine*. 2019 Feb 14;37(8):1021-1029.
2. Kuronuma K, Takahashi H. Immunogenicity of pneumococcal vaccines in comorbid autoimmune and chronic respiratory diseases. *Hum Vaccin Immunother*. 2019;15(4):859-862.
3. Darvishian M, Bijlsma MJ, Hak E, van den Heuvel ER (December 2014). "Effectiveness of seasonal influenza vaccine in community-dwelling elderly people: a meta-analysis of test-negative design case-control studies". *The Lancet. Infectious Diseases*. 14 (12): 1228–39. doi:10.1016/S1473-3099(14)70960-0. PMID 25455990.
4. Nichol KL, Nordin JD, Nelson DB, Mullooly JP, Hak E (October 2007). "Effectiveness of influenza vaccine in the community-dwelling elderly". *The New England Journal of Medicine*. 357 (14): 1373–81. doi:10.1056/NEJMoa070844. PMID 17914038. S2CID 14850833.
5. Meryn Voysey, Sue Ann Costa Clemens, Shabir A Madhi, Lily Y Weckx, Pedro M Folegatti . et al. Safety and efficacy of the ChAdOx1 nCoV-19 vaccine (AZD1222) against SARS-CoV-2: an interim analysis of four randomised controlled trials in Brazil, South Africa, and the UK *Lancet* 2021; 397: 99–111, December 8, 2020, [https://doi.org/10.1016/S0140-6736\(20\)32661-1](https://doi.org/10.1016/S0140-6736(20)32661-1)
6. Logunov DY , Dolzhikova IV , Shcheblyakov DV et al. Safety and efficacy of an rAd26 and rAd5 vector-based heterologous prime-boost COVID-19 vaccine: an interim analysis of a randomised controlled phase 3 trial in Russia. *Lancet*. 2021; (published online Feb 2.) [https://doi.org/10.1016/S0140-6736\(21\)00234-8](https://doi.org/10.1016/S0140-6736(21)00234-8)

Honorific Geras

Award Function

Chennai – 06th September 2021



Dr. Prathap C Reddy

Padma Vibhushan Awardee
Founder Chairman, Apollo Hospitals Group

Dr. O. P. Sharma, Gen. Sec. Geriatric Society of India welcomed all for the award ceremony, which was held to confer Dr. Prathap C. Reddy, Padma Vibhushan Awardee & Founder Chairman of Apollo Group of Hospitals, Honorific Geras- the highest token of appreciation by Geriatric Society of India for his outstanding medico-social services rendered in India.



Dr. O. P. Sharma invited Dr. Prathap C. Reddy to the dias.



He welcomed Ms. Preetha Reddy, Vice Chairperson of Apollo Group of Hospitals, Ms. Suneeta Reddy, Managing Director of Apollo Group of Hospitals, Members of Geriatric Society of India & other dignitaries.



Dr. Garima Handa, Treasurer Geriatric Society of India presented a floral bouquet to Dr. Prathap C. Reddy.



Dr. O. P. Sharma briefed about the inception of this unique medical society working for elderly since 1982. He spoke about various activities such as creating awareness about the special aspects of geriatric medicine among medical & paramedical personnel in India. He narrated the academic work in the form of regional, national & international CME programs. He also gave a brief resume of various orations to encourage workers in the field of elderly care. Subsequently he mentioned about the first text book of geriatric medicine & the first Indian guidelines of vaccination in older adults which were brought out under the banner of Geriatric Society of India.

Dr. Sharma then mentioned about the highest token of respect accorded by the society in the form of a title “Honorable Geras”, which this year is being conferred upon Dr. Prathap C. Reddy for his exemplary work in the medicine, public health, academics, social services & philanthropic work.



Dr. Vivek Handa, Past President Geriatric Society of India presented golden medallion to Dr. Prathap C. Reddy.



He also presented a token of respect to Dr. Prathap C. Reddy.



Dr. Anand P. Ambali, Vice President GSI read the citation describing the achievements and services done by this great personality.



Dr. Mohit Sharma, Executive Member GSI presented the citation to Dr. Prathap C. Reddy.



Dr. O. P. Sharma presented "Honorific Geras" award to Dr. Prathap C.

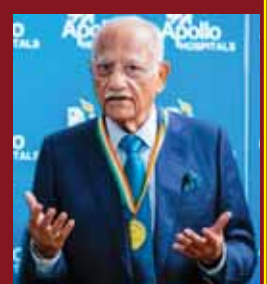


Dr. Anand P. Ambali presented a memento to Dr. Prathap C. Reddy.



Ms. Preetha Reddy & Ms. Suneeta Reddy joined the felicitation.

Dr. Prathap C. Reddy shared his words of wisdom about the special aspects of medical & health needs of senior citizens. He mentioned about geriatric giants – a unique component in geriatric medicine. He also highlighted the need for creation of infrastructure for the elderly care. His emphasis on preventive healthcare was most relevant to our country. He also touched upon the social, financial, emotional aspects which are equally relevant components in elderly care. He congratulated Geriatric Society of India for the good work that they were doing & also mentioned about Apollo Group commitments in this filed. His stress was to identify the problems of Indian elderly & create a need based infrastructure for their medical & health needs.





Dr. Mohit Sharma proposed a vote of thanks in which he mentioned a couplet from a poem meaning – A man is Indian if he has his heart filled with emotions for his



Members of GSI with Dr. Prathap C. Reddy.



Members of Apollo Family who joined the award ceremony.

Congratulations

Congratulations

Dr V S Natarajan & Dr Arvind Kasturi

Two Life members of Geriatric Society of India have been selected for **National Award - Vayoshreshtha Samman** by Government of India to be presented on October 1, to commemorate International Day for Older People

1. Padma Sri Dr V S Natarajan, Chennai in category of best private sector organisation in promoting the well being and welfare of senior citizen.

2. Dr Arvind Kasturi, Professor of Community Medicine St Johns Medical Sciences, Bangalore, in category of best research in Geriatric Medicine.

Congratulations

Nadoja Dr P.S.Shankar

During Silver Jubilee Conference, Rajiv Gandhi University of Health Sciences organised Kannada Medical Literary Conference on 25th and 26th of May 2022 on hybrid mode at Bengaluru. The conference was held under the Presidentship of Nadoja Dr P S Shankar. It was inaugurated by Sri T S Naghabharana, Chairman, Kannada Development Authority. Inaugural function was chaired by Dr S Sachhidananda, Vice Chancellor. The theme of the conference was Medical Science -The, Now and Later. Dr Shankar in his presidential address spoke on the medical writing in Kannada, Medium of instruction, Translation of Scientific works & Technical terms, popularization in medical literature, there were 10 seminars, one panel discussion, Poets meet. The Valedictory function was addressed by Sri Vishweshara Bhat, noted Journalist.



Physicians' day celebration



The Association of Physicians of India under the Presidentship of Dr. Kamallesh Tiwary honoured 16 physicians selected from different regions of the country. Nadoja Dr. P. S. Shankar was amongst them. He was honoured with citation, shawl and pagadi at his home by local members of API on 23rd December 2021.

Vaidyashri National award



Sitting (left To Right) Dr M K S Sudarshan and Dr Muralimohan Choontaru. Standing Dr. A Dayanand, Ambikashankar, Vijayakumar, Dr Mahadev, Dr H Veerabhad

The 22nd anniversary of Dr P S Shankar Pratishthana was held on 1st January 2022 at Kalaburagi. The Science calendars which are given free to all High Schools in this region were released by Sri Vijayakumar, Joint Director, Education Department. Books were presented to Kamalnagar Primary School. An Engineering Student received the scholarship of Rs 48,000 for the entire course. Dr M K Sudarshan, Chairman, Covid Technical Advisory Committee of the State was honored with the Vaidyashri National award. Dr. Muralimohan Chuntaru was honored with Vaidya sahithya Prashasti. Dr A Dayanand, Vice Chancellor, Gulbarga University was the chief guest. Smt Ambikashankar presided over the function.

Congratulations

Dr. JK SHARMA

Dr JK Sharma has been conferred with Honorary Doctor of Science D. Sc. (Honoris Causa) by HNBHU Medical Education University, Dehradun (Uttarakhand) in the Convocation Ceremony held on 6th December 2021 at Dehradun by Chief Guest: Honourable H. E. The Governor of Uttarakhand Lt. Gen. Gurmeet Singh (Retd.) in the presence of Health Minister, Secretary M&H, Uttarakhand and Vice Chancellor of University Prof(Dr)Hem Chandra



Congratulations

Dr. Sachin Desai



Congratulations Dr. Sachin Desai on completion of Masters of Science Dementia Studies from University of Stirling. Sponsored by the Commonwealth Commission, UK.

News from Dharwad

Department of General Medicine of SDM College of Medical Sciences and Hospital, Sattur Dharwad under Shri Dharmasthala Manunatheshwara University and Geriatric Society of India celebrated international day of older persons on 01st October 2021. On this day a CME on “Common Geriatric Problems & Solutions” was organized on virtual platform. Chief Guests of function were Dr. Niranjan Kumar & Dr. P. S. Shankar. The topics covered were Geriatric care &

Geriatric Giants by Dr. Sachin Desai, Falls in Elderly by Dr. Mohan D Kashinkunti, Care giver burden by Dr. B. S. Patil, Gerontechnology by Dr. Naveen Kulkarni, Cognitive impairment and dementia by Dr. B. V. Halakatti, Incontinence by Dr. Siddaganga, Immunization in elderly by Dr. Anand Ambali & Polypharmacy by Dr. Kiran Aithal. Organizing Chairman was Dr. Kiran Aithal. Vote of Thanks given by Organizing Secretary Dr. Naveen Kulkarni.

News from Vijaypura

International Day for Older Persons on 3/10/2021

The Geriatric Clinic, Department of Medicine & Geriatric Society of India, Delhi jointly organized a virtual guest talk to commemorate International Day for Older Persons on 3/10/2021.

The Guest faculty was Dr. Shriram V. Kulkarni from Mumbai. The Topic for discussion was “Digital Applications by Physician for the benefit of the senior” citizens. This topic was in correlation of the Theme “Digital Equity in all ages” announced by WHO. The Chairpersons were Dr. Pratibha P, HoD Geriatric Medicine, JSS Mysuru & Dr. Naveen Kulkarni, SDM, Dharwad. 50 delegates participated on zoom and the convener for the program was Dr A P Ambali moderator was Dr V G Warad Prof of Medicine. The



Dr. S.V. Kulkarni



Dr. Pratibha Periera

academic partners were API Konkan Chapter, NMDF Navi Mumbai Doctor's Foundation & API Navi Mumbai City Chapter

World Alzheimer's Day 2021

The Geriatric clinic of Department of Medicine BLDE University organised a program on 29.01.21 to commemorate World Alzheimer's Day 2021 between 3.30 to 05PM at OPD no 19. 50 senior citizens, Interns & postgraduates from the department of psychiatry and medicine also participated. The program included awareness talks on Dementia and Alzheimer's by Dr. Anand P. Ambali & Ways to keep memory intact in old age by Dr. Manojvrjay B Kalasgond, Dept of Psychiatry, BLDE DU. Memory activities for all the participants. Several questions raised during



Q/A session were answered. The winners of the completion Shri Modi and Shri Nimbaragi were presented a Book on health care by older people. Mr. A. S. Galagali, Mr. Asif, Mr. Eknath Jadhav and Mr. Akki provided technical support. High tea was served to all the participants.

News from Vijayapura

Health check-up camp and awareness talk



The Anubhavaamruta Parivar, a senior citizen forum had organized a health check-up camp and awareness talk to commemorate their first anniversary on 19/10/2021 at Kitur Rani Chanamma Mangala Karyalaya Vijayapura.

Shri B S Hipapragi welcomed the gathering, Shri Payanna, Dr Dindur, Shri Patil and Dr Anand inaugurated the program by watering the plant. Shri S V Patil was chief guest and Dr R N Dindur presided. Dr Anand P Ambali, delivered talk on Tips to maintain good health in old age, meticulous use of



Digital platform and Preparedness during natural disasters. The health services provided by the geriatric clinic like dementia clinic, immunization clinic and specialties services rendered were informed to the audience.

A total of 41 senior citizens participated in the program. Health services like Electrocardiography, Random Blood sugar and Blood pressure assessment were arranged by Shri B M Patil Medical College Hospital and RC. Shri Basavraj Devar proposed a vote of Thanks.

Guest Lecture

The Geriatric Clinic organized a Guest Lecture "Care Giver issues in Elderly -Challenges and solutions" on webinar on 29/12/2021 by Dr. Mangala S Borkar, Professor of Geriatric Medicine at Govt Medical College Aurangabad, Maharashtra. The Chairpersons were Dr. Anita Basavaraj, FGSI, Fogarty Graduate Prof & HoD, Medicine GMC Miraj & PVPGH, Sangali and Dr. Purna Chandra Dash, Professor, Nodal Officer Geriatric Medicine, SCB Medical College, Cuttack. The program was jointly organized by SARS, API, NPHCE & GSI

Dr. Anand P. Ambali, Vice President of GSI welcomed the gathering. Dr. O. P. Sharma, General Secretary of Geriatric Society of India gave a preamble to the topic, Dr. Kaushik R Das, President of GSI narrated the importance of Caregiver and Challenges, while Dr. R. M. Honnutagi, Medical Superintendent elaborated on the services of geriatric clinic of Shri B. M. Patil Medical College Hospital & RC,



Vijayapura BLDE university.

Dr. Mangala Borkar discussed in detail the scenario, role of formal and informal caregiver, challenges faced by elderly, burnout incaregivers, the role of old age homes, senior citizen maintenance act, and a few tips for clinicians regarding how to counsel the caregiver.

66 delegates participated in the program. Dr. V. G. Warad gave away a vote of thanks.

Geriatric Clinic, Department of Medicine Shri B. M. Patil Medical College Hospital & RC, Vijayapura BLDE (Deemed to be University) & GSI organised webinar on 30/11/2021. The program was jointly organized with SARS, API & NPHCE The topic for discussion was “Basics of Palliative care for Physicians”. The Guest faculty was Dr.Linge Gowda K.B.,Professor and Head of Palliative Medicine at Kidwai Memorial Institute of Oncology, Bangalore. Dr. Linge Gowda discussed in detail the scenario, indications, philosophy when to refer for palliative care, and the challenges way ahead in detail .The Chairpersons were Dr. Prabha Adhikari, HoD Geriatric Medicine, Yenepoya University, Mangalore and, Dr. Chinmay Kumar Maity, Consultant Geriatrician at AMRI Kolkata & Chairman GSI West Bengal Chapter.

Dr. Anand P. Ambali welcomed the gathering.Dr. O. P.



Sharma, General Secretary of Geriatric Society of India gave a preamble to the topic while Dr. R. M. Honnutagi, Medical Superintendent elaborated on the services of our geriatric clinic.. 56 delegates (26 online and 30 offline) participated in the program.Dr. V. G. Warad conveyed a Vote of thanks.

News from Belgavi

Felicitations & vaccinations of senior citizens by Dr MV Jali at KLE institute Belgavi



News from Kolkata

GSI WB branch and GSI Eastern Zonal Branch at their celebration of WED'21 on 01.10.2021 have announced launching of online pre-recorded video training programme for Geriatric Care Giver as a continuous process. As a beginning, Dr. Krishnanjan Chakraborty, Dr. Mainak Gupta and Dr. Aniruddha De, have been given the responsibility of Editors for the programme. We are in the stage to structure the programme. Some fee will be charged for the course inclusive of a training guide book in English

Approach to Geriatric Care-Current Scenario

GSI Eastern Zonal Branch has organized a Virtual Geriatric CME with the theme “Approach to Geriatric Care-Current Scenario”, on 29.08.2021. Dr. (Prof.) Taruni Nangbam being the Organizing Chairman and Dr. Aniruddha De being the Organizing Secretary of the programme. Welcome address given by Dr.Aniruddha De, blessings were showered by Patron GSI Nadoja Prof. Dr. P.S. Shankar. Dr. Arunansu Talukdar, Chairman, GSI EZ Branch inaugurated the scientific deliberations.



Key note address on the theme given by Dr. O.P. Sharma, General Secretary GSI. Speaker for “Home based Geriatric Care-Necessity, Hurdles and way forward” was Dr. Dhires Kumar Chowdhury and Chairpersons were Dr. (Col.) Pramod Kumar; Dr. Subhas Chandra Mahapatra.

For symposium on “Management of uncontrolled hyperglycaemia in post COVID-19 elderly” moderator was Dr. Sudhir Kumar. Dr. Jayanta Kumar Panda spoke on Role of OHA-Which is the best choice, Dr. Ritesh Agrawal spoke on role of Insulin-Does basal insulin make a better choice. Chairpersons were Dr.(Prof.) Taruni Ngangbam & Dr. Chimay Kumar Maity.

For Symposium Psychiatric Issues related to COVID-19 Moderator was Dr. Soumik Ghosh. I Dr. Bappaditya Chowdhury spoke on in Geriatric Age Group .Chairpersons were Dr.(Prof.) Purna Chandra Dash; Dr. Shambo Samrat Samajdar. Dr. Jayanta Sharma spoke on Long COVID Syndrome. Chairpersons were Dr. (Prof.) Ashoke Das; Dr. (Prof.) Arunansu Talukdar.

Valedictory remarks were given by Dr. (Prof) Taruni Ngangbam, Organizing Chairman. The CME has been participated by more than 100 delegates and been a grand success.

World Elder's Day 2021

World Elder's Day 2021 was observed virtually and jointly by GSI WB branch and GSI EZ branch on 01.10.2021. The meeting has been attended by about 30 delegates including two doctors from Bangladesh and one doctor from UK. Welcome address given by Dr. Krishnanjan Chakraborty, General Secretary GSI WB Branch moderator of the programme. Showering of Blessings and remarks on the day being done by Patron GSI, Nadoja Prof. Dr. P.S. Shankar and Dr. O.P. Sharma, General Secretary of GSI. Meeting inaugurated by Dr. Arunansu Talukdar. Two topics were deliberated- (1) Geriatric Care and Family Bonding- Indian Sceneraio - Speaker being Dr. Kaushik Ranjan Das; Chairpersons- Dr. (Prof.) Purna Chandra Dash; Dr. (Prof.) Partha Ray. (2) Elderly Abuse- Speaker being Dr. Taruni Ngangbam; Chairpersons – Dr. Kausik Majumdar; Dr. Ashoke Das.

Announcement of virtual pre recorded video training programme for Geriatric Care Givers being done by Dr. Mainak Gupta, Treasurer, GSI WB branch. Valedictory remarks done by Dr. Kausik Majumdar.

News from Kolhapur

Understanding elderly health

Grabbing the opportunity of 'World Mental Health' day, Kolhapur chapter organised CME on 'Understanding elderly health: on Sunday 10th October 21. Being a maiden, very first physical CME almost after one and half year of pandemic lock-down period, it was welcomed by our esteemed members and more than 75 members attended the same. Our parent body KMA, branch Indian medical association (IMA) Kolhapur was generous enough to extend their whole hearted cooperation and allowed us to use their premises and rest necessary infrastructure.

Our guest speaker, one of the Kolhapur's young, enthusiastic and dynamic physician Dr. Tanmay Vora spoke elaborately on "Co-morbidities in elderly". He touched almost every topic like hypertension, diabetes, IHD, BPH, Parkinson's, joint disabilities, cataracts etc etc within his stipulated short time. He narrated salient features of the conditions in a nutshell. Veteran and senior psychiatrist and our Chairman-elect Dr. P.M. Chougule and young, active Dr. Nikhil Chougule dealt with the "psychological behavioral changes and their sequelae". They had a special reference to the post covid lock-down period and its maximum brunt on the elderly people.

The CME was concluded with panel discussion where in numerous queries and questions from the audience were sorted out.

We also conducted 'Public forum awareness programme



on the same topics for the elderly citizens where in more than 80 old people had gathered. Talks of the orators in local vernacular, lucid language were highly appreciated which thus raised lot many questions after the session, which were clarified. A delicious and sumptuous Lunch was arranged for the medical facility after the CME program.

I wish to share with you that I have successfully completed Masters degree in Dementia studies at the University of Stirling, Scotland. This degree was sponsored by the Commonwealth Commission, UK for all the three years. Now, one among the 27,800 commonwealth alumni all around the world.

News from Bagalkot

Dr Sachin Desai Associate Professor, Department of Community Medicine, S.N. Medical college, Bagalkot gave a guest talk on Epidemiology and risk factors of Dementia in a senior citizen at Department of Geriatric medicine, Yenepoya medical college hospital and RC, Mangalore, Geriatric society of India on 26/27-09-2021.

He did community awareness programme, Guest talk of common health issues in elderly care at Indian Academy of PSM (National) on 29/09/2021.

Did guest talk on Guest talk on Geriatric care and addressing the dementia, depression, falls and fractures, caregiver burden and incontinence (5 geriatric giants) at Department of Geriatric medicine, SDM medical college

hospital and RC, Dharwad, Geriatric society of India on 01/10/2021.

Guest talk on Role of Prevention in Geriatric care and addressing the dementia, depression, falls and fractures, caregiver burden and incontinence (5 geriatric giants) at Government of Karnataka, NCD wing Bagalkot district, Ambedkar Bhavan, Bagalkot on 01/10/2021.

Guest talk on arboviral infections and its management at Innovative physicians forum, NEW DELHI on 10/10/2021.

Guest talk on non pharmacological interventions in geriatric care at World Congress Of Geriatrics And Gerontology, Bangalore Dr VP Rao, Biogenesis Health Cluster, Hyderabad on 31/10/2021.



GSICON 2021

17th International Conference on Geriatrics and Gerontology

Organized by

Geriatric Society of India West Bengal Branch

at

KOLKATA

Date : 19th and 20th February 2022 VIRTUAL MODE

<https://www.vc-webinar.com/GSICON2021>

Registration Free BUT Mandatory

Organizing Chairpersons -

- Dr. Kaushik Ranjan Das - krdas58@yahoo.co.in
- Dr. Chinmay Kumar Maity - maityck@gmail.com
- Dr. Kausik Majumdar - kausikmajumdar@hotmail.com

Organizing Secretaries

- Dr. Krishnanjan Chakraborty - drkrishnanjan@gmail.com
- Dr. Rahul Bhattacharayya - aarbeedoc@gmail.com
- Dr. Aniruddha De - aniruddhade@hotmail.com

Treasurer

Dr. Mainak Gupta - drm_gupta20@yahoo.co.in

DELENG/2012/42798 Dt. 12 June 2012
Price Rs. 20 per copy

All Members are Requested to
Kindly update their
Email ID / Telephone No:
by sending mail to
secretariat office of GSI.