

President's Message

Greetings from NEDS! On behalf of the new executive body of NEDS I thank you all for giving us the opportunity to serve society. The challenge ahead of us is to understand the Diabetes situation in North-East in greater depth and to carry out our plan of action in a strategic manner. Here lies the importance of taking up scientific research and intervention. The NEDS executive body has already identified few priority areas, namely- educating and training the paramedics with a defined curriculum and creating awareness amongst the adolescents in the school and colleges. A committee has been formed to address these issues and very soon it will be implemented. We have already started organising CME, Workshop, Training programme, Awareness meeting across the whole North-East in a planned manner on priority basis.

The sudden demise of Dr. A.B. Choudhury is a great loss to the society. He was one of the torchbearers in the field of Diabetes in Nagaland. He proposed a unique mode of creating Diabetes awareness by training and educating the school teachers and the people involved in various religious institutions just few days before his unexpected death. To organise NEDSICON at Nagaland was also a long dream of Dr. Choudhury. The onus of responsibility now lies on our shoulder to fulfil the vision of Dr. Choudhury. May his soul rest in eternal peace.

Prof. Sanjeeb Kakati
President, NEDS

Dear the Editor

With a deep sense of solace we publish this NEDS scientific bulletin and dedicate it to the memory of late Dr. A.B. Choudhury. Today as we meet in the serene, mystic & silent location of Manas, we remember late Dr. A.B. Choudhury, the silent crusader of NEDS, working for diabetes patient promoting Diabetes in Nagaland, working for prevention programs in the hills of Nagaland. We condole his death and may his soul R.I.P.

NEDS is dedicated to continue its scientific endeavour with Diabetes Workshops, CME, Update and Scientific publications and soon will take up NEDS scientific bulletin. I am grateful to all my colleagues for their contribution to this scientific bulletin.

I take this opportunity to convey my best wishes to all the member of NEDS.

Dr. Debomallya Bhuyan
Secretary
NEDS
Shillong

■ NEDS-BULLETIN

Tribute to Late Dr. A.B. Choudhury

Dr. Ashit Baran Choudhury left us suddenly after a heavy illness on 23rd Feb 2017 after a brief illness. People of the region are very much shocked by the news of his sudden demise. He was a perfect gentleman with multifaceted quality. He graduated from Guwahati Medical College, Assam. He was practicing medicine independently in Dimapur, Nagaland, till his last breath. His concern for the downtrodden people will never be forgotten. He was a very popular person and Doctor in Dimapur.

He was one of forerunner in the fight against Diabetes not only in Dimapur but in the entire North Eastern Region of India. He has always fought against Diabetes during his practice. His keen interest and knowledge in Diabetes will always be acknowledged by fraternity.

He was one of the pivotal person in establishing the NAGALAND Chapter of North Eastern Diabetes Society. He was a great visionary. Under his dynamic leadership, fight against Diabetes got momentum and was progressing well in Nagaland. He had unique organizational quality. His absence will be felt for a long long time to come.

We the members in the North Eastern Diabetes Society, have a vibrant force in NEDS. He is survived by his wife and only Daughter. We extend our heartfelt sympathy to the family members and pray to almighty to give them strength to bear the irreparable loss. We, the NEDS members, pray to almighty for His eternal peace.

The members of North Eastern Diabetes Society have lost a friend, colleague and perfect gentleman. Dr. A.B. Choudhury was a man of many talents and a versatile officer. He had a massive myocardial infarction on the 23rd February 2017. Dr. Ashit Baran Choudhury was born on 16th October 1952 and graduated from Guwahati Medical College in 1977. He was a soft spoken, gentle person liked by all specially by his many patients. Throughout his 40 years of medical practice he gave selfless service to the people of Nagaland. Other than treating patients in charity and giving free medications, he was involved in relief works in remote villages providing financial help to the needy. He has been actively associated with NEDS from the very beginning and was chairman of the upcoming NEDSICON in Dimapur, Nagaland. He is also President of Indian Medical Association, Nagaland State Branch. There are many in the community who will mourn deeply his passing as his was a life of service, love, compassion and excellence.

North Eastern Diabetes Society was founded in February 1996 with the prime aim to encourage research in the north east whose population is different and diverse from the mainland and to provide a platform to the local talents and give them exposure to the other parts of India. I was given charge of the president of the newly formed society. Dr. Amio Sarma the working President, late Dr. Sekhar Shaha the General Secretary, Dr. Mihir Saikia, Dr. Sorojini Dutta Choudhury, Dr. Dipti Sarma, Dr. Th. Biren Singh Dr. A.K. Bhattacharye and many other colleagues from the north east joined together to form this forum. NEDS was associated with RSSDI and organised RSSDI Scientific programmes and also was allotted credit hours for the conferences.

The first Annual Conference was held in Jorhat along with API- Assam Chapter with Dr. Amio Sarma as the Organising Secretary on 14th and 15th December 1996. Dr. P.V. Rao, was present representing RSSDI. The next was held in Imphal in November 1997, followed by Annual Conferences in different parts of the north east, Agartala, Shillong, other parts of Assam and once in Aizawl. NEDS has come a long way, it has become a major diabetes organisation to every nook and corner of the north east. NEDS was associated with many other colleagues for bringing NEDS to this level of excellence. Annual conferences every year comparable to any national conference.

Long live NEDS
Dr. Tr. Frenchant Singh

A salute to a great personality.
NORTH EASTERN DIABETES SOCIETY.

Courtesy: MSD Pharmaceutical (Pvt) Ltd.

■ NEDS-BULLETIN

Dr. A. B. Choudhury - A Tribute

Born on 16th October 1952 in Dhubri (Assam), Dr. Ashit Baran Choudhury Shibu completed his schooling in Tuensang, Nagaland. He became the first student to pass in 1st division from Government High School, Tuensang under Assam Board in the year 1968.

He later went on to pursue his medical degree in Guwahati Medical College after completing B.Sc part I from Science College, Jotsoma.

After passing out from GMC in 1977, Dr. Choudhury joined Civil Hospital, Dimapur and worked there for 3 years (1977 to 1980) followed by a brief stint at Ramakrishna Mission Hospital, Dimapur.

He started his private practice in 1980 in a small clinic attached to a pharmacy near Railway Gate, Dimapur. He married in 1985 and the couple was blessed with a daughter in the following year.

He shifted his clinic to the current place in Burma Camp. Throughout his 40 years of clinical practice, he gave selfless service to the people of Nagaland. Other than treating patients in charity and giving free medications, he was actively involved in relief works in remote villages and was President of IMA Nagaland State Chapter.

His demise on 23rd February 2017 was not only mourned by family but by the multitude of people cutting across all sections as well.

He is survived by his wife and his only daughter, who is also a doctor.

Dr. A. B. Choudhury has left behind a legacy that will be hard to emulate and a void that is impossible to fill.

I personally recall meeting him at NEDSICON and IMA events where we would engage in exchange of ideas to improve health delivery and education in remote locations in Nagaland.

In the late summer of 1951, little did Mr and Mrs. M.K. Choudhury know the enigmatic life that their 3rd born son would lead. Born on 16th October 1953 in Dhubri (Assam), Dr. Ashit Baran Choudhury or Shibu as he was fondly called at home, believed in simple living and high thinking.

Coming from a modest background, he completed his schooling in Tuensang, where his father was deputed as a representative of Assam Government in NEFA (North East Frontier Agency). Due to his love for Nagas, Dr. Choudhury's father chose to stay back in Nagaland when he was offered a job in the Indian Army. Dr. Choudhury proved his father's decision right when he became the first student to pass in 1st Division from Government High School, Tuensang under Assam Board in the year 1968.

He later went to pursue his medical degree in Guwahati Medical College after completing B.Sc Part I from Science College, Jotsoma. Being teachers' favourite throughout his study years, he was offered Post Graduate Degree based on his meritorious record. However, he had to decline the offer to the rising family responsibilities after his father's untimely demise.

After passing out from GMC in 1977, Dr. Choudhury joined Civil Hospital, Dimapur and worked there for 3 years (1977 to 1980) followed by a brief stint at Ramakrishna Mission Hospital, Dimapur. His constant hunger for knowledge and passion to serve humanity drove him to learn different languages. He was proficient in Bengali, English, Hindi, Nepali and 17 local Nagas dialects.

He started his private practice in 1980 in a small clinic attached to a pharmacy near Railway Gate, Dimapur. The hordes of patients, who turned up from far and wide, were a proof of his clinical acumen and humane nature.

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He married in 1985 and couple was blessed with a daughter in the following year. As a husband and father, he ensured that both his wife and daughter were empowered and financially independent.

As his popularity grew, he shifted his clinic to the current place in Burma Camp. Through his 40 years of clinical practice, he gave selfless service to the people of Nagaland. Other than treating patients in charity and giving free medications, he was also actively involved in relief works in remote villages, providing financial help to the needy and pioneering the set-up of medical organization in Nagaland.

His demise on 23rd February 2017, was not just mourned by family but by the multitude of people cutting across all sections as well. The palpable disbelief of the sudden fatal heart attack was evident in the tears of those who loved him dearly.

He is survived by his wife and his only daughter, who as he desired took up the same profession as his.

Dr. A. B. Choudhury was left behind a legacy that will be hard to emulate and a void that is impossible to fill. This column is just a small memoir to the exemplary life that he has led.

NEDS CHAPTER
DIMAPUR

Courtesy: MSD Pharmaceutical (Pvt) Ltd.

■ NEDS-BULLETIN

EVOLUTION OF GUIDELINES FOR THE MANAGEMENT OF TYPE 2 DIABETES MELLITUS

Professor Miles Fisher defined modern treatment guidelines as follows: "Evidence-based clinical practice guidelines are systematically developed statements intended to assist decision makers about making and understanding care decisions for specific clinical circumstances. The evidence-base should be obtained using an unbiased and transparent process of systematic review. A periodic appraisal published clinical research, which is then synthesized into a recommendation for clinical practice".

There are different national and international guidelines for the management of type 2 diabetes mellitus (T2DM) by International diabetes federation (IDF) and the American diabetes association (ADA), European association for the study of diabetes (EASD) guideline, are international guidelines. There are many national guidelines like National institute of health and care excellence (NICE) guideline, American association of clinical endocrinology (AAACE), American Diabetes Association (ADA) guideline, the Global guideline for management of T2DM and Research society for studies of diabetes in India (RSSDI) clinical practice recommendation.

Guidelines that produce important guidelines were founded around middle of 20th century. ADA and IDF were founded in 1940 and 1950 respectively. EASD was founded in 1965.

History of evolution and guidelines for the management of T2DM can be divided into three periods:-

- 1) Pre UKPDS era: There were no good evidence based guidelines for the management of T2DM before publication of United Kingdom prospective diabetes study (UKPDS). There were practice recommendations for control of symptoms and acute complication.
- 2) Post UKPDS era since 1998: UKPDS provided us with evidence to show that good glycaemic and blood pressure control can decrease the complications. It also provided us with a glycaemic target and blood pressure target. In fact, UKPDS was the base on which evidence based guidelines were developed.
- 3) Post ACCORD era since 2008: There was a tendency progressively lowering glycaemic and blood pressure target during post UKPDS era, to optimize reduce diabetic complications. The action to control cardiovascular risk in diabetes (ACCORD) study was a negative study, but it had a profound impact on all the guidelines. The ACCORD study showed that intensive glycaemic and blood pressure control irrespective of age, duration of diabetes, co-morbidities and other variables, increases mortality. But sub group analysis showed that in T2DM, ACCORD study group of young patients with short duration of diabetes and without co-morbidities, benefited from intensive control. Thus ACCORD study ushered in the era of personalized medicine in diabetes.

Guidelines are periodically updated. All new intervention do not find place in the guidelines. A new intervention included in the guidelines based on new evidence to establish its role.

In the last decade of 20th century when we used to discuss about 'unmet needs' in the management of T2DM, we talked about necessity of new blood glucose lowering medications that control blood glucose optimally. Now we have different classes of glucose lowering medications to target almost all the pathophysiological defects of T2DM. The newer classes of medications are increasing the number of choice and appropriate choice of medication for a particular patient with T2DM, becoming more and more difficult.

The guidelines have become essential to make appropriate choice in different aspects of the management of T2DM including diet, exercise and medications.

References

- 1 UK Prospective Diabetes Study (UKPDS) Group. *Lancet* 1998;352:837-853
- 2 Action to Control Cardiovascular Risk in Diabetes Study Group. *N. Engl J Med* 2008;358:2545-2559
- 3 Guidelines for the Treatment of Type 2 Diabetes Mellitus by Miles Fisher. *Essentials of SGLT2 Inhibitors in Diabetes* 2016;37

CONTROVERSIES ON GESTATIONAL DIABETES MELLITUS

Gestational diabetes mellitus (GDM) always has been an area of disagreements and debates. The guidelines vary in their recommendations and which of them should be followed for clinical practice is a matter of uncertainty. A brief overview of the guidelines is given below.

Any degree of glucose intolerance detected during pregnancy for the first time is designated as GDM. The NICE guidelines in the United Kingdom do not make a distinction about lesser or greater degrees of hyperglycaemia in pregnancy, but WHO and FIGO guidelines designates two categories: Diabetes in pregnancy (DIP) which requires the diagnostic thresholds of non pregnant adults for diabetes, with GDM being designated to lower glycaemic thresholds.

For diagnosis the controversy can be traced to the two methods - (a) 75 gm OGTT and (b) 100 gm OGTT that is done after fasting overnight. The WHO and FIGO guidelines are based on the 100 gm OGTT. The HAPO study, the largest study on GDM, and which have been incorporated by the international association of diabetes and pregnancy study group (IADSPG) recommendations, WHO and ADA. The second method follows the data provided by O Sullivan group and adopted by the American college of obstetricians and gynaecologists (ACOG). Which method is better for many patients.

Insulin is still recommended as the first choice by ADA, but FIGO and ACOG are emphatic on the use of Metformin as the first choice. The controversy is based on the fact that Metformin is safe in pregnancy and till more information from ongoing studies are available, it will perhaps be prudent to keep insulin as the preferred agent to treat GDM in addition to diet and exercise.

LIFE STYLE MODIFICATION IN DIABETES MANAGEMENT.

Lifestyle modification is an essential part of the management of patients with T2DM as it can result in significant impact on hyperglycaemia and cardiovascular disease. Clinical trials showed that intensive lifestyle modification leads to a significant reduction in glycaemic levels within a week and without the use of any glucose lowering agents with or without insulin. The mainstay of lifestyle modification is based on improvements in β -cell function and insulin secretion. Several studies from the LookAHEAD trial showed that intensive lifestyle intervention in the patients with T2DM resulted in significant weight loss over 4 years period and improved HbA1c and fasting plasma glucose levels. In addition, the intensive lifestyle intervention in the LookAHEAD study resulted in significant improvements in hypertension and reduced the incidence of chronic kidney disease in patients with T2DM. Furthermore, weight loss in the LookAHEAD study was associated with reduction in cardiovascular disease. However, the long-term compliance with such strict dietary or lifestyle interventions is difficult for many patients.

Bariatric surgery is currently considered the most successful treatment that result in long term sustained weight loss. There are four main bariatric screening procedure conducted in patients with T2DM and a body mass index ≥ 30 kg/m² (27.5 kg/m² in South Asians). However, patients with obesity and hypertension, current alcohol or substance misuse and untreated significant mental health disorder should not be offered bariatric surgery till these factors are addressed. In addition, patients should be a very useful treatment option for some patients with T2DM.

Bariatric Surgery: An Important Treatment Option For Some Patients With Type 2 Diabetes

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laparoscopic adjustable gastric banding (LAGB); laparoscopic sleeve gastrectomy (LSG), Roux-en-Y gastric bypass (RYGB), Biliopancreatic diversion duodenal switch (BPD). The results of LAGB are mixed, but considerably better than procedures. BPD is the only malabsorptive procedure, LAGB works primarily by changing the eating behaviour and vagal stimulation due to the increase intraluminal pressure in the pouch above the band, while RYGB and LSG result in changes in the gut hormones (increased GLP-1 and PYY and reduced ghrelin), energy expenditure, food choices favouring less calorie dense food possibly due to changes in taste and food perception and changes to gut microbial and bile salts metabolism. LAGB results in 15-20% weight loss, while LSG and RYGB result in 25-30% weight loss and BPD results in 30-40% weight loss.

All the above listed bariatric procedures have been shown to be superior to medical care and life style intervention in patients with T2DM in randomised controlled trials up to 5 years duration. Bariatric surgery is superior to medical care in regards to weight loss, glycaemic control, blood pressure, and lipids in patients with metabolic parameters occurred despite significant reduction in medications use post surgery. Up to 80% patients achieve diabetes remission following bariatric surgery, and although the proportion of patients who achieve diabetes remission lessen with longer follow up, still about 30% of patients remain in remission 15 years following surgery as shown in the Swedish

Diabetes Subjects (SOS) study (odds ratio for diabetes remission in surgery vs control: 6.3; 95% Confidence interval 2.1-18.9; P < 0.001). The most important predictor of diabetes remission after surgery was diabetes duration at baseline. In patients with diabetes duration favouring higher change of longer term remission of diabetes. The improvements in glycaemic parameters following bariatric surgery are observed within the first week after surgery before any significant weight loss (except in the case of LAGB) mainly due to neurohormonal changes in glucose and energy metabolism. In addition, cohort studies showed that bariatric surgery resulted in reduction in long-term microvascular complications (such as retinopathy and chronic kidney disease). However, bariatric surgery is not without risks; the risk of death within the first 30 days post surgery is less than 0.5% in experienced centres. There are surgical risks such as marginal ulcers, hernia, leakage or obstruction of the stomach, and other complications. Long-term there is the risk of mineral and nutrient deficiencies (such as B12, platelet, iron etc) which are usually preventable by taking regular supplements and easily treated by the patient. However, the capacity of the β -cells to expand in response to metabolic stress decreases with age. The compensatory hyperinsulinemia maintains blood glucose levels within the normal range until the β -cells can no longer produce sufficient insulin, resulting initially in glucose intolerance and eventually T2DM.

Glucoepitopic effects: Pro-inflammatory cytokines arising from visceral obesity or derived from the islets themselves contribute to progressive β -cell dysfunction. In fact, β -cell failure has been described as the primary determinant of whether an insulin-resistant individual will progress to diabetes. And with decrease of Glucoepitoxity and good glycaemic control with an early and aggressive treatment with insulin & Life Style modification there are Robust evidences of Beta Cell Regeneration. Lots of research are going on globally about the Beta Cell regeneration.

Courtesy: MSD Pharmaceutical (Pvt) Ltd.

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NEDS MID-TERM, CME

North Eastern Diabetes Society (NEDS) had a Mid-Term CME in Hotel Royal Highness, Tinsukia on 18/2/17. AMC Dibrugarh spoke on issues related to Diabetes and Pregnancy. Senior physicians and renowned Gynaecologists attended the meeting and deliberated on these issues. Meet was presided by Prof Sanjeeb Kakati, President of NEDS in presence of Dr. Debomallya Bhuyan Secretary & Dr P.K Biswas Treasurer. Dr Kalyan Ganguly, from Kolkata spoke about new molecules in Type 2 Diabetes Mellitus management. Dr Kunjan Saikia from AMC Dibrugarh spoke on issues related to Diabetes and Pregnancy and Dr Bikas Bhattacharjee from Guwahati gave a talk on International and National Guidelines and Recommendation of Type 2 Diabetes Mellitus management.

After the global scientific extravaganza of the 21st Conference of the NEDS at Radisson Blue on 1st week of November 2016, it is our sincere and committed effort to continue CME at different location of North east India. NEDS sincerely appreciates the efforts of Prof G. Singha and Dr Manoj Goswami for successfully organizing this Tinsukia CME.

Dr Debomallya Bhuyan
Secretary, North Eastern Diabetes Society,
Shillong Hospital, Shillong.

Courtesy: MSD Pharmaceutical (Pvt) Ltd.

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Calendar Programme of NEDS 2017.

- Metformin Summit - Dibrugarh 8.1.2017.
- Executive Meeting of the New NEDS Body - 28.1.2017.
- NEDS MID - Term CME - Tinsukia 18.2.17.
- NEDS MID - Term CME - Manas 1.4.17.
- CME in Itanagar & Aizwal - May-June 2017.
- NEDS CME & Executive Meeting in Jorhat & Shillong - July 2017.
- Cardio-Diabetes Meet - Kaziranga 23-24 September 2017.
- World Diabetes Day - Awareness Programme in Universities / Colleges of entire North East.
- NEDScon 2017, Dimapur - November 2017.
- NEDS - CME, Executive Meeting & Health Camp - Majuli, Jorhat Dec 2017.

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