

PRECONCEPTION CARE: Consensus Guideline

Prof Shubhagata Choudhur

Panel of Exparts Prof S M Ashrafuzzaman

Dr Israt Jahan

Prof Samsad Jahan Shelly

Centre for Global Health Research

Targets of treatment

Blood (plasma) glucose

Room no: 233, 2nd floor, BIRDEM General Hospital

Website: www.pcc-badas.org, E-mail: info@pcc-badas.org

Mobile help line: 01705 360268, 0153 4118454

122 Kazi Nazrul Islam Avenue, Shahbag, Dhaka-1000, Bangladesh





Consensus Guideline

If results are normal, testing should be repeated at a minimum of 3

years intervals, with consideration of more frequent testing depending

on initial results (e.g. those with prediabetes should be tested yearly)

FPG: ≥126 mg/dL (7.0 mmol/L). (Fasting is defined as no caloric

2-h PG: ≥200 mg/dL (11.1mmol/L) during an OGTT. (The test should

containing the equivalent of 75g anhydrous glucose dissolved in

A1C: ≥6.5% (48 mmol/mol). (The test should be performed in a

In a patient with classic symptoms of hyperglycemia or hyperglycemic

crisis, a random plasma glucose ≥200 mg/dL (11.1 mmol/L)

FPG: 100 mg/dL (5.6 mmol/L) to 125 mg/dL (6.9 mmol/L) (IFG), or

2-h PG: in the 75-g OGTT 140 mg/dL (7.8 mmol/L) to 199 mg/dL

laboratory using a standardized method), or

Criteria for diagnosis of prediabetes

(11.0 mmol/L) (IGT), or

be performed as described by the WHO, using a glucose load

and risk status

Criteria for diagnosis of DM

intake for 8-14 h), or

Dr Tareen Ahmed Dr Faria Afsana Dr Bishwajit Bhowmik Dr Tasnima Siddiquee Dr Rowshan Hosne Jahan BADAS-RVTC Printing Press 477 Medical Road, Jurain, Dhaka. Phone: 7445228

> Facebook: facebook/pcc-badas, Skype: skype/pcc-badas Youtube: youtube/pcc-badas

Waist circumference (WC) WC <90 cm (male)

Person with diabetes Teaching, training & empowerment to

Fasting/pre-meal < 6.0 mmol/L

HDL cholesterol >40 mg/dl (male)

Post-meal < 8.0 mmol/L

LDL cholesterol <100 mg/dl

Triglyceride <150 mg/dl

>50 mg/dl (female)

Systolic <140 mm of Hg

Diastolic<90 mm of Hg

<80 cm (female)

take part in treatment

Treatment

 People with pre-diabetes are suitable candidates for diabetes prevention Those with normal glucose tolerance, but having risk factors for diabetes, should undergo regular screening And those with normal glucose tolerance and having no risk factors for diabetes, risk assessment may be done periodically

> Lifestyle measures are key to prevention of diabetes (~58 percent reduction after 3 years) reduction in the rate of conversion to type 2 diabetes

loss is effective in preventing DM

Selection and initiation of a treatment regimen hyperglycemia Insulin Insulin

Prevention and care of risk factors

 Intensive lifestyle modification programs have shown to be very effective Follow-up of large studies of lifestyle intervention has shown sustained Weight management is a very important component: 7 percent weight Diets that can prevent diabetes irrespective of weight loss include

Appendix 1: Screening pathway

Women of reproductive age

Risk factor Identification

High risk

Screening for Diabetes Screening for metabolic disorder (HTN/Dyslipidemia)

Diabetic Non diabetic Screening in preconception period Treatment

Preconception care Treatment, regular F/U, preconception care while planning pregnancy

Revaluation in Preconception period

Nuts and berries in the context of a diet high in vegetables and whole fruits

 Improving insulin resistance – some diets e.g. calorie - dense foods and trans fats can induce insulin resistance, even without causing obesity; so restriction of these are to be implemented Dietary measures also help in controlling weight, thus preventing diabetes Physical activity and exercise: Controls overweight and obesity including abdominal fat

 Improves insulin sensitivity Intensity of exercise is important – moderate intensity exercise of 150 minutes/week is beneficial

 Both aerobic and anaerobic exercises can prevent DM Drug - metformin is at present approved for prevention of diabetes, though various other agents are being tried with good outcomes

 Breast feeding improves weight management of mother and reduces the risk of future obesity of the baby, thus minimizes chance of developing diabetes both

 Intra-uterine or early childhood malnutrition is an important cause of future type 2 DM in the offspring; so maternal nutrition during pregnancy must be Chronic arsenic exposure may be associated with diabetes; care should be exercised to combat this problem

Appendix 2: Policies for community awareness on

preconception care

Empty stomach

Preconception care made by BADAS

the TV of the centers, display _____ Marketing & Awareness ____ Discussion on Preconcer

Non-diabetic women

education in the centers

particularly gestational diabetes (GDM) among newly married couples of Bangladesh through religious leaders (Marriage Registrar/ Kazi). This program will assure a healthier start in life and hoping that the future generations will not have to fight the same difficulties as the current adult

BADAS has already trained 400 Marriage Registrars and 300 Health Professionals and established 50 preconception care corners in 50 centers/ hospitals of BADAS. In this program, the trained Marriage Registrar discuss the positive impact of pre-conception care and planned the pregnancy to the couples during the actual wedding ceremony and distribute a booklet containing information on pre-conception care and prevention of GDM. They also advise the couples to visit the nearest pre-conception care corners of BADAS for receiving targeted advice and routine check-ups incl. Screening for diabetes, hypertension, anemia, nutritional status, urinary infection before planning the pregnancy. BADAS has also launched a pre-conception care

preconception care and prevention of non-communicable diseases (NCDs)

Besides the counselling of the newly married couples, each Marriage Registrar has also educated 100 community people and requested them to counselling corner after a direct request from them as they wished more privacy when talking to the couples.

package in a minimum cost (600 BDT) to make the program selfsustained.

The National Council of BADAS has because of the enormous needs, and this successful project decided to take pre-conception care as one of the core

teach another 100-adult people and so on. Hereafter, they take part in community awareness campaigns and also participate in Radio and Television programs for the promotion of the pre-conception program. To make it more effective the offices of the Marriage Registrar is now converted into

programs of the Association. BADAS has also launched a national campaign "Healthy Mother- Healthy Child - Healthy Nation: All Pregnancy Should be A cohort of 60,000 women will be followed from pre-conception to 5 years

after delivery through this scheme. One-page information of pre-conception care has now been included in the general guidebook of BADAS. This information will be circulated into 4.5 million registered patients of BADAS hoping it will create a massive impact for creating community awareness developed a website (www.pcc-badas.org) and free mobile helpline (10614). Half million people have already got information about preconception care through Facebook campaign. We have also launched an online education program (both in Bangla and English) on pre-conception care for health professionals and general people. International Diabetes Federation (IDF) and South Asian Federation of

our online certificate program. About 1000 physicians have already taken part in this online certificate course. It is a matter of pride that the Honourable President, Honorable Prime Minister, Honorable Minister of Health and Family Welfare of Govt. of Bangladesh have endorsed the preconception care and planned pregnancy. Government of Bangladesh has just been passed a law for strengthening preconception care in Bangladesh. Preconception counselling to the newly married couple is now mandatory for all marriage registrar in Bangladesh. The

line "Healthy Mother - Healthy Child - Healthy Nation: All pregnancy should be planned" to be stamped as a seal in marriage certificate. With this proposed project BADAS will able to strengthen the pre-conception care service and will also try to expand the preconception care throughout the

(Prof A K Azad Khan) President, Diabetic Association of Bangladesh & Chairman, Preconception Care Through Religious Leaders

Gestational diabetes mellitus (GDM)

Individuals at higher risk for GDM should be identified

Previous delivery of a baby greater than 9 pounds (4.1 kg)

Previous unexplained perinatal loss or birth of a malformed child

pregnancies, or excessive gestational weight gain

Personal history of abnormal glucose tolerance

Gold standard test for screening: 2 samples OGTT

after the pregnancy.

Age greater than 25 years

Glycosuria at the first prenatal visit

GDM is defined as any degree of glucose intolerance that is first recognized

during pregnancy regardless of whether the condition predates, or persists

Pre-pregnancy weight ≥110 percent of ideal body weight or body mass index

over 25 kg/m2, significant weight gain in early adulthood and between

Member of ethnic group with higher risk of type 2 diabetes (e.g. South or East

Maternal birthweight greater than 9 pounds (4.1 kg) or less than 6 pounds (2.7

Medical condition/setting associated with development of diabetes, e.g.

hypertension or pregnancy-related hypertension, metabolic syndrome

Time of screening: 1st trimester of pregnancy or during 1st antenatal visit

Pre-pregnancy diabetes can be diagnosed if one or more of the following

polycystic ovary syndrome, current use of glucocorticoids, essential

among people with diabetes and their family members. The project has also

Endocrine Societies (SAFES) have endorsed our education program on preconception care. Now anyone from any part of the world can take part in

GDM should be diagnosed if one or more of the following criteria are met:

2-hour PG 8.5-11.0 mmol/l (153 -199 mg/dl) following a 75g oral glucose load

[If Random plasma glucose is ≥11.1 mmol/l (200 mg/ dl) in the presence of

diabetes symptoms and or HbA1c ≥6.5%-should be considered as

If OGTT is normal in 1st visit, 2-sample OGTT at 24-28 weeks of pregnancy is

Test FPG 1 h PG 2 h PG Diag

75gm OGTT ≥92 mg/dl ≥180 mg/dl ≥153 mg/dl 1 or more

MNT Should be started soon after diagnosis of GDM by dietitian and reviewed

≤18.5 kg/m² 35 kcal/kg/day 40 kcal/kg/day

18.5 to 22.9 kg/m² 30 kcal/kg/day 38 kcal/kg/day

23 to 27.4 kg/m² 25 kcal/kg/day 30 kcal/kg/day

Appendix 4: Approval letter from the Ministry of Law,

BMI≥27.5 kg/m² 30 –33% calorie

(≥5.1mmol/L) (≥10.0 mmol/L) (≥8.5 mmol/L) positive value(s)

FPG 5.1-6.9 mmol/l (92 -125 mg/dl)

prepregnancy diabetes]

Diagnostic criteria

Blood glucose targets

in each trimester

recommended.

Preconception care Family planning Blood grouping Preconception immunization Diabetes mellitus Gestational diabetes mellitus Obesity Anemia Urinary tract infection (U) Appendix Source

1st and 3rd trimester

2h PPG ≥200 mg/dl

M plasma glucose targets and treatment protocol b

2h PPG ≥120 mg/dl To <140 mg/dl NPT 1 week NPT+PT

FPG ≥110 mg/dl To <126 mg/dl NPT 3 days NPT+PT

2h PPG ≥140 mg/dl To <200 mg/dl NPT 3 days NPT+PT

(≥11.1mmol/L) NPT+PT x NPT+PT

NPT: Non-pharmacological treatment, PT: Pharmacological treatment

≥92 mg/dl To 109 mg/dl NPT 1 week NPT+PT

Treatment Change of

PG values

(≥5.1 mmol/L) (6.0 mmol/L)

(≥6.7 mmol/L) (7.8 mmol/L)

(≥6.1 mmol/L) (7.0 mmol/L)

(≥7.8 mmol/L) (11.1 mmol/L)

SAFES: South Asian Federation of Endocrine Societies

Appendix 5: Preconception Care Package of BADAS

Preconception care Preconception care is the provision of biomedical, behavioral and social health interventions to couples of reproductive age planning for conception. Candidates for care Every woman of reproductive age who is potential candidate to become pregnant Every woman with or without diabetes General components of preconception counseling Family planning, pregnancy spacing Exercise Nutrition- healthy eating Weight management before pregnancy- if overweight/obese or Abstinence from tobacco, tobacco product, alcohol and illicit drugs Advise administration of daily iron and folic acid supplement if Identifying under/over nutrition, anemia, diabetes, hypertension, urinary tract infection, sexually transmitted infections etc Maintaining good control of any preexisting medical conditions (e.g. diabetes, hypertension, anemia, urinary infection, asthma, seizures, thyroid disorders and inflammatory bowel disease etc.) Determining the time of conception by obtaining an accurate

menstrual history and providing instruction by using a menstrual

PG values Treatment Change of treatment

2h PPG ≥120 To <140 NPT 2 week/1 week NPT+PT

2h PPG ≥140 To < 200 NPT 1 week NPT+PT

FPG ≥126 mg/dl NPT+PT x NPT+PT

(≥11.1mmol/L) NPT+PT x NPT+PT

NPT: Non-pharmacological treatment, PT: Pharmacological treatment

Diabetes Atlas (7th Edition, 2015), International Diabetes Federation 2015

SAFES: South Asian Federation of Endocrine Societies

Uncomplicated/ complicated

Uncomplicated/ complicated

FPG ≥92 To 109 NPT 2 week/1 week

FPG ≥110 To <126 NPT 1 week

mmol/L) mmol/L)

(≥7.0 mmol/L)

Assessment during preconception counseling nthropometric measurement Under nutrition Increasing weight before (weight, height, waist, hip) pregnancy Over nutrition Weight reduction before Blood pressure measurement Hypertension Lifestyle measurement (div Medication if needed Blood glucose (Fasting and 2 Diabetes Lifestyle measurement (diet hours after 75 gram glucose) Medication if needed Prediabetes Lifestyle measurement (diet and exercise) Anemia Appropriate dietary advice Medication Identification of Another antibody test at Rh-negative approximately 28 weeks of If still unsensitized, should receive Rho (D) immune globulin prophylactically Urine for routine microscopic Proteinuria and Appropriate medication examination (R/M/E)

Prevention and care of risk factors

givers for the best possible treatment

prevention program for diabetes

should be offered special preventive care

Healthy lifestyle measures as in diabetes

and preventive care

counseling regarding the best option to conceive

Women with GDM should be under strict follow-up of appropriate care

Women with pre-pregnancy diabetes should be given proper

After delivery, the mother should be under regular screening and

It is to be kept in mind that the babies of GDM mothers are at

increased risk of future type 2 DM; so they demand regular screening

Excessive weight gain before and during pregnancy should be

Those with other risk factors, such as increasing age, steroid use, etc.

Family planning Family planning services are necessary for the widespread adoption of preconception care for two reasons. First, preconception care is more likely if pregnancies are planned, and family planning services encourage pregnancy planning. Second, family planning services usually include counseling, and counseling provides an opportunity to discuss the advantages of preconception care. Contraceptive methods A. Modern methods Combined oral contraceptives (COCs) or 'the pill' Progestogen-only pills (POPs) or 'the minipill'

 Progestogen only injectable Monthly injectables or combined injectable contraceptives (CIC) Combined contraceptive patch and combined contraceptive vaginal ring (CVR)

 Intrauterine device (IUD)- copper containing Intrauterine device (IUD)- levonorgestrel Male condoms

B. Traditional methods Calendar method or rhythm method Withdrawal (coitus interruptus) Female condoms

Male sterilization (vasectomy)

Obesity is a medical condition in which excess body fat accumulates to

the extent that it may have an adverse effect on health, leading to

reduced life expectancy and/or increased health problems.

Underweight <18.5 <18.5

Normal weight 18.5 - 24.9 18.5 - 22.9

Overweight 25 - 29.9 23 - 24.9

Selecting obesity treatment

mass index; WC: waist circumference; WHR: waist hip ratio

BMI 30 kg/m² or above - Pharmacotherapy

BMI 40 kg/m² or above - Surgery

Classification of overweight and obesity by different international

WHO (Global) WHO (Asian) IDF

Obese ≥30 ≥25 ≥90/80 ≥0.90/0.8

WHO: World Health Organisation; IDF: International Diabetes Federation; BMI: body

BMI 25 kg/m² or above - Diet, exercise, and behavior change

Men/ Women Men/Women

Blood grouping of couples should be done before conception

should be done before conception if not done earlier

is Rh negative

Thalassemia screening of couple haemoglobin electrophoresis

· All pregnant women should be screened for Rh(D) antibodies. An

unsensitized, Rh-negative women should have another antibody test

at approximately 28 weeks of gestation. If the woman is still

unsensitized, she should receive Anti-D immune globulin

undergoes abortion (either spontaneous or induced), or has a

condition associated with maternal-fetal hemorrhage (e.g., abruptio

placentae) should receive Rho(D) immune globulin unless the father

Blood grouping is also important for mother in situation where urgent

pregnancy, severe ante or post-partum hemorrhage etc

blood transfusion is required, e.g. severe anemia before or during

Anemia is a condition in which the number of red blood cells or their

oxygen-carrying capacity is insufficient to meet physiologic needs, which

Hemoglobin concentration cut-offs to define anemia as set by the

12 g/dl for non-pregnant women and 13 g/dl for adult male

WHO are 11 g/dl for pre-school aged children and pregnant women,

Haemoglobin is responsible for carrying oxygen to body tissues,

which is essential for tissues and muscles to function effectively.

When there is iron deficiency the body cannot get the required

Iron deficiency anemia is the most common type of anemia during

In women of childbearing age, the most common cause of iron

affect absorption of iron, can also cause iron deficiency anemia

deficiency anemia is pregnancy or a loss of iron in the blood due to

heavy menstruation. A poor diet or certain intestinal diseases that

pregnancy, and it occurs due to insufficient mineral iron

Complete blood count, Peripheral blood film (PBF)

Specific tests- as required e.g. Stool for OBT etc

Proper diet rich in iron, vitamins and minerals

Iron, vitamin B12 and folic acid supplement according to cause

Vitamin B12, folate and iron profile

vary by age, sex, altitude, smoking and pregnancy status.

amount of oxygen

Any unsensitized, Rh-negative patient who has an ectopic gestation,

Blood grouping Lactational amenorrhea method (LAM) There are four main blood groups: A, B, AB and O. The blood will also be Emergency contraception (levonorgestrel 1.5 mg) either 'rhesus (RhD) positive' or 'rhesus (RhD) negative'. Standard days method or SDM

 Basal body temperature (BBT) method Two day method

Sympto-thermal method

Family planning in special situations

 Hypertension: avoid combined oral contraceptives (COCs) and monthly injectable contraceptive Diabetes: can use all types of contraceptives as in general population

Female sterilization (tubal ligation)

 Breast feeding: avoid combined oral contraceptives (COCs) and monthly injectable contraceptive Certain uncommon serious diseases of the heart, blood vessels, or liver, or breast cancer: avoid combined oral contraceptives (COCs),

> Recommendation for spacing after a live birth After a live birth, the recommended interval before attempting the next pregnancy is at least 24 months to reduce the risk of adverse maternal,

injectable, progestogen-only pills (POPs), implants

perinatal and infant outcomes. Recommendation for spacing after an abortion After a miscarriage or induced abortion, the recommended minimum interval to next pregnancy is at least six months to reduce risks of

adverse maternal and perinatal outcomes.

Prevention and care of risk factors

preventable.

be searched

Obesity and pregnancy

should be addressed

for a healthier pregnancy

Overweight and obesity, as well as their related NCDs, are largely

Eat more fruits and vegetables and fewer foods high in sugars, and

Limit the intake of sugar and salt consumption from all sources; not

Limit energy intake from total fats and shift fat consumption away

Engage in regular physical activity (do at least 30 minutes of regular,

Endocrine causes (hypothyroidism, Cushing's disease etc.) should

Oral contraceptive and some drugs like steroid, anti-psychotic etc

Losing weight before becoming pregnant is the best way to decrease

Losing even a small amount of weight (5–7 percent of current weight,

or about 10-20 pounds) can improve overall health and pave the way

Include more legumes, whole grains and nuts in the diet

from saturated fats to unsaturated fats

moderate-intensity activity on most days)

the risk of problems caused by obesity

Preconception immunization

Many vaccine-preventable diseases have serious consequences for the pregnant mother, the fetus, and the neonate, which makes the immunization status of women of reproductive age an important focal point for preconception care.

 Ideally, all women should be vaccinated against preventable diseases prior to conception according to the recommended adult immunization schedule. Several infections with serious consequences for the mother or fetus can be prevented by preconception vaccination, in particular, tetanus, MMR (measles, mumps and rubella), varicella and

 All women should be up-to-date with five doses of tetanus vaccine (TT) before they become pregnant Before administering a live vaccine, it is reasonable to exclude pregnancy at that time and possibility of pregnancy in the next four

> Women with polycystic ovary syndrome Other clinical conditions associated with insulin resistance (e.g. severe obesity, acanthosis nigricans) Hypertension (BP >140/90 mmHg or on therapy for hypertension)

Dyslipidemia (HDL cholesterol level <35 mg/dL and/or a triglyceride level

 Testing should be considered in all adults who have symptoms of Testing should be considered in all adults who are overweight (BMI)

≥23 kg/m²) and have another risk factor For all subjects (without symptoms), testing should begin at age 35

Diabetes mellitus is defined as chronic/persistent hyperglycemia. The

central pathology is the deficiency of insulin secretion, or of insulin action,

or both. At recent time several other pathological processes are

Pre-diabetes is a condition which includes impaired fasting glucose (IFG)

Individuals at higher risk for type 2 DM and prediabetes should be

recognized in causing diabetes, specially in type 2 DM.

and impaired glucose tolerance (IGT).

First-degree relative with diabetes

High-risk race/ethnicity (e.g. South or East Asian)

Women who delivered a baby weighing >9 lb or H/O GDM

Physical inactivity

Known IGT or IFG

Prevention and care of risk factors Hypertension Iron deficiency anemia can be prevented by eating a diet high in iron-rich foods and vitamin C Hypertension is defined as the systolic blood pressure ≥130 mm Hg and or the diastolic blood pressure ≥80 mmHg, or if the individual is taking Pregnant and lactating mothers should take iron rich foods antihypertensive medicine.

 Foods high in iron include beans, green leafy vegetables, raisins and other dried fruit, eggs, seafood, shrimp, and oysters and iron-fortified dry and instant cereals should be encouraged Persons at increased risk for high blood pressure are those who have Too frequent blood donation should be prevented elevated blood pressure (SBP 120-129 mmHg, DBP <80mmHg),

those who are overweight or obese Infants and children, especially those born prematurely or experiencing a growth spurt need special care Measurement of blood pressure is done with a manual or automated sphygmomanometer. Proper protocol is to use the mean of 2 Vegetarians should replace meat with another iron-rich food measurements taken while the patient is seated, taking rest for 5 minutes in sitting position before measuring the BP

Once hypertension is confirmed, appropriate anti-hypertensive drug(s) is

started. Dose is titrated accordingly at regular intervals.

120-129/<80 130-139/ BP mmHg ≥140/90

ACC/AHA Hypertension Guideline 2017

Prevention and care of risk factors

 Eating five servings of fruits and vegetables a day Reducing saturated and total fat intake Regular physical activity (at least 30 minutes a day)

reduce systolic blood pressure by 2 to 10 points limit intake of alcohol to no more than one standard drink a day Stopping tobacco use and exposure to tobacco products

 Managing stress in healthy way such as through meditation, appropriate physical exercise, and positive social contact Proper management of chronic kidney disease and other diseases precipitating hypertension

 Avoid using strong soaps or antiseptic creams Maintain genital hygiene after sexual intercourse

Maintaining a normal weight: every 5 kg of excess weight lost can

Urinary tract infection may occur with all precautions, but following practices can reduce the likelihood of developing UTI:

Reducing salt intake to less than 5 g of salt per day (just under a

 Administration of proper antibiotic according to C/S report Sufficient fluid intake Admission if any indication of complicated UTI exists Recurrence should be prevented Prevention and care of risk factors

> To drink plenty of water regularly To develop a habit of urinating as soon as the need is felt After urinating, keep genital area clean and dry. Make sure to clean from front toward back

Urinary tract infection (UTI)

Urine for C/S before starting antibiotic

forming units per ml.

Urine R/M/E

Urinary tract infection (UTI) is the presence of actively multiplying

organisms within the urinary tract and growth of at least >105 colony

Ultrasound, intravenous pyelogram, cystoscopy etc may be done according to

It is estimated that about 50 percent conceptions are unplanned and almost 25 percent of the pregnancies are unwanted in Bangladesh. Nearly three-quarters of mothers in Bangladesh do not receive antenatal care during pregnancy. The urban-rural differential in antenatal care is quite significant. Like other South-Asian countries, the prevalence of gestational diabetes (GDM) has also been progressively increasing in Bangladesh. It is well known that women with undiagnosed or poorly managed GDM as well as their infan

> cardio-metabolic diseases in future if GDM is not addressed and therefore good sense to do pre-conception counselling and care earlier. The majority (89%) of people in Bangladesh are Muslims. Muslim marriage is a solemn covenant between a man and a woman which must be registered by the Marriage Registrar (Kazi in local language). Religion plays an important role for the conception in Bangladesh family values. For the prevention of GDM, we need to intervene prior to conception. Therefore, there is an excellent opportunity to seek the influence of marriage registrar in creating individual and community awareness in helping people to take proactive action and change their attitudes about preconception care, proper pregnancy

are at increased risk of developing type 2 diabetes (T2DM) and other

planning and prevention of NCDs particularly GDM.

In developing countries like Bangladesh, religious leaders have considerable influence on mass people. Diabetic Association of Bangladesh (BADAS) has successfully used this linkage for diabetes care for a long time. From the beginning, the founder of BADAS used the religious leaders to motivate people to lead a healthy life. BADAS has successfully used religious leaders to create national community awareness for checking blood sugar and taking insulin during Ramadan fasting.

Considering the influence of religious leaders and the positive impact of preconception care, BADAS has been running a project on Pre-conception Care named "Preconception Care through Religious Leaders" since May 2016. The goal of this program is to improve community awareness on

 Mediterranean diet Low glycemic index foods

 Tobacco increases the risk of developing diabetes; so it must be prohibited Babies of GDM mothers are at increased risk of future diabetes; so they demand special preventive care, specially obesity management

 FPG ≥7.0 mmol/l (126 mg/ dl) 2-hourPG ≥11.1 mmol/l (200 mg/dl) following a 75g oral glucose load

Screening

criteria are met:

Appendix 3: Work flow in Preconception Care Center

ose who are eligible for Preconception care Service 2. Potential women (both diabetic and non-diabetic) to become pregnant Reception / Information Desk/ Counter To inform about the Package (600 BDT) 2. To ask whether she is in empty stomach Make a receipt (use the related software) morning in empty stomach 4. Request her to come next day for further procedures Next day Send to the concern doctor (s) with all reports Write downthe BP, weight and height in PCC guidebook Write down the treatment in PCC guidebook
Send to the Counselor room with lab reports and PCC guidebook Take waist circumference and hip circumference Entered the reports and given treatment in the project TAB 3. Given necessary nutritional advice 4. Woman diagnosed with diabetes/ prediabetes (IFG/IGT) will be advised for registration and further follow-ups in respective centers

Justice and Parliamentary Affairs, Government of People's Republic of Bangladesh আইন,বিচার ও লংগল বিবয়ক মহাপালয় আইন ও বিচার বিচাপ their feets leafing any mercy with co, come were from critisfices within the াপর্ববালা-পূর্ব সের বিষয়ক পরামশী রামান বাছসামে করার মান্য সকল রেলা রোলিপ্রারণসংক নির্দেশ করান করা হসে। এমইলতে "বুছ মানুছ বিক-সমূহ দেশ-সকল পর্যবাহন হোল পরিবাছিক" লাইনটি এনিনেনাম নিস (प्राप्तवार पुत्र करार क्या राज्य रिकाइ (प्रीप्रदेशकार का निर्देश समाजव सामानन करार क्या का कार्यप्राप्तात ক্ষুবোৰ কৰা হালে। বহা, শতিকাঁক (নিবৰণ) মহানাহকে বিষয়েট কাৰ্তিক চপাৰ্যকি কৰাৰ কৰা কন্যান কৰা হালে। প্রক্রের ৫ কে ব্যক্তন বাদ দলবাই, বংলাদেশ ভালাবাদিক শ্রমিতি। o (प्रश्न-परिवर्णक (शिक्सम) ১৮ বং আনুষ্ঠ বনি বেরে, চাল ব্রথক কোন কেবিট্রার ব পান-কেবিট্রারর মাধ্যমে বিশ্বতী পর্কর্যন করা। জন অনুষ্ঠান করা বলে। Commission of the participation in terms



