



Daffodil
International
University

Internship Report

On

Observations of Gestational Diabetes and diverse departments in ICMH

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Date of Submission: 06/10/2022

Letter of Approval

Date: 06/10/22

Subject: An announcement regarding the approval of the Internship Report.

This is declared that the internship report on “Observations of Gestational Diabetes and diverse departments in ICMH” has prepared by the student, **Sadia Nowrin Bristy** bearing **ID 172-34-645** is not a copy of any internship report previously made by any of the students and that was based on her observations of the patients of Gestational Diabetes during her internship period in the ICMH.

..... 

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DECLARATION

By submitting this project report entitled "Observations of Gestational Diabetes and diverse departments in ICMH", I declare that this is a unique work and all entirety of the work contained therein is my own, original work, and I have collected and analyze all the data. Moreover, I am the sole author of this report. It also declares that it has not been submitted elsewhere for any other degree conferment.

Signature



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ACKNOWLEDGEMENT

Firstly, wish to express my all praises and gratitude to the almighty Allah for giving me the power of strength and ability to perform everything soundly and enables me to complete in this training.

I would like to my deep gratitude and sincere thanks to the honorable Dean, Faculty of Allied Health Science, and Professor Dr. Abu Naser Zafar Ullah for this kind cooperation and encouragement to accept this degree.

I might want to uncover my tender gratitude to **Ms. Nasima Akter Mukta** ma'am for her thoughtful management during my organizational attachment period, and I am additionally thankful to all the other NFE Faculty members for their great help during university life.

Summary

The most frequent metabolic problem and medical consequence of pregnancy is gestational diabetes mellitus (GDM). Throughout 7 to 10 percent of pregnancies around the globe are afflicted by GDM, and 8.2 percent of pregnant women in Bangladesh also have this prevalent medical issue. Any degree of the early or first diagnosis of pregnancy-related glucose intolerance is referred to as GDM. The country's moms and children's nutrition and health are being improved through the Institute of Child and Mother Health. It is recognized as one of Bangladesh's premier training institutions for mothers and children's health and nutrition. The institute's center for training and communication (CTC) is exceptional in planning and carrying out different courses. This institution primarily focuses on patient care, research, and the development of human resources.

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CHAPTER ONE

INTRODUCTION

The most frequent medical problem associated with pregnancy is gestational diabetes mellitus (GDM). Any degree of glucose intolerance that begins or is first seen during pregnancy is known as gestational diabetes mellitus (GDM), and it is linked to negative outcomes in both mothers and kids. GDM is referred to be "any degree of the early or initial identification of glucose intolerance in pregnancy" by the World Health Organization (WHO). Each year, it affects up to 10% of pregnant women in the United States. It affects expectant mothers who have never had a diabetes diagnosis. Globally, it is thought that 7 to 10 percent of pregnancies are impacted by GDM. (Ahmed et al., 2022)

In rural Bangladesh, the prevalence of gestational diabetes (GDM) varies from 8.2 to 12.9%. In Bangladesh, where women's socioeconomic standing is poor and causes disparities in access to healthcare and nutrition, undetected instances of diabetes in pregnant women are of particular concern. According to the demographic and screening technique, the prevalence of GDM may vary from 1 to 14 percent of all pregnancies, complicating around 4% of all pregnancies.

Gestational diabetes may be divided into two categories. Through diet and exercise, women with class A1 may control their condition. Class A2 patients must take insulin or other drugs. Following delivery, gestational diabetes will disappear. However, it boosts your chance of developing type 2 diabetes later in life and may have an impact on your baby's health. (Ahmed et al., 2022)

Causes of gestational diabetes

Insulin resistance or decreased insulin production during pregnancy may lead to gestational diabetes.

When you eat, your pancreas produces the hormone insulin, which aids in the transfer of the blood sugar glucose to your cells, where it is used by them as an energy source. Your placenta produces hormones throughout pregnancy that cause your blood glucose levels to rise. Your pancreas can typically produce enough insulin to deal with it. However, gestational diabetes develops if your

body is unable to produce enough insulin or stops utilizing it as it should. (Ahmed et al., 2022)

Risk factors include being

- Pregnancy-related diabetes is more likely to develop if you:
- Before becoming pregnant, you were overweight
- possess blood sugar levels that are higher than they should be but not to the point where diabetes would be present (this is called prediabetes)
- Have a diabetic family member
- Experiencing issues with insulin because of polycystic ovarian syndrome (PCOS) or another medical condition
- Have heart disease, high cholesterol, high blood pressure, or other medical issues
- have delivered a huge baby (weighing more than 9 pounds)
- possess a miscarriage
- have given birth to a stillborn or child with a certain birth problem
- above the age of 25 (Ahmed et al., 2022)

Gestational diabetes symptoms

The symptoms of gestational diabetes in women are often nonexistent or mistaken for those of pregnancy. Most people learn they have it when they have a standard examination. (Ahmed et al., 2022)

May notice that:

- Most gestational diabetic women don't have symptoms or may mistake them for those associated with pregnancy.
- Most people learn they have it during an ordinary screening.

Blood tests are used for diagnosis. Between 24 and 28 weeks of pregnancy is the suggested window for screening for people at normal risk. Testing could be place at the first prenatal appointment for high-risk individuals.

Preventative measures include exercising and keeping a healthy weight before becoming pregnant. A diabetic diet, physical activity, medicine (such metformin), and maybe insulin injections are

used to manage gestational diabetes. The majority of women can control their blood sugar with diet and exercise. Four blood sugar checks a day are often advised for people who are impacted. It is advised to start breastfeeding as soon as possible after giving delivery.

Depending on the population under study, 3 to 9 percent of pregnancies are impacted by gestational diabetes. It is particularly prevalent in the latter three months of pregnancy. 1 percent of people under the age of 20 and 13% of those over the age of 44 are affected by it. Numerous ethnic groups are more vulnerable, including Asians, American Indians, Indigenous Australians, and Pacific Islanders. 90% of the time, gestational diabetes goes away once the baby is delivered. However, type 2 diabetes is more likely to affect women than males.

Institute of Child and Mother Health (ICMH)

A national-level institution in Bangladesh dedicated to becoming a center of excellence in South East Asia is called the Institute of Child and Mother Health (ICMH). Through its three goals of developing human resources, conducting research, and providing patient care, the institution strives to enhance the health and nutrition of children and mothers in the nation.

An organization called the Institute of Child and Mother Health (ICMH) conducts research with the goal of enhancing mothers' and children's health in Bangladesh. The location is in Mutual, Dhaka. It was started in 1992 and is run by the Ministry of Health and Family Welfare (MOHFW) of the Bangladeshi government.

The national Institute of Child and Mother Health (ICMH) promotes the wellbeing of mothers and children. Development of human resources, research, and patient care are the goals of this institution. It is recognized as one of Bangladesh's premier training institutions for mothers and children's health and nutrition. All levels of healthcare professionals from both home and abroad are receiving training from the institution. The institute's center for training and communication (CTC) is exceptional in planning and carrying out different courses. The organization has so far created a variety of curriculum for teaching moms and children about nutrition and health. The institution offers a vast, attractive infrastructure specifically designed for training functions, supported by a pool of professional facilitators, trainers, and support staff that have years of expertise.

Institution working on the following sectors

- Teenage Health
- Increasing Capacity
- Information Technology Evaluation & Monitoring
- Reproductive Fitness
- Research
- Motherhood in safety

Mission: to take care of mothers' and children's needs, notably in the areas of nutrition and health.

Goal: The ultimate objective is to enhance the nutritional and health condition of Bangladeshi mothers and children.

Objectives

Essential health and nutrition research

Human Resource

Development (HRD)

Patient Care.

Working Languages

English

Bengali

Total Number of Staff and Trainer

Staff: 378

Trainer: 60

Department

Pediatrics

Pregnancy and

gynecology

Imaging & Radiology

Applied statistics and

epidemiology

Children's Surgery

Anesthesiology

Molecular Medicine

Nutrition

Significance of the Report

For the students and researchers involved in this sector, the report would be very useful. The report maintains a high level of objectivity since it offers case study-focused information. As a result, anyone involved in this subject will find the material useful. Notably, the report's significance to students studying nutrition, food science, health, and allied sciences is immeasurable.

Limitations of the Report

Despite thorough consideration, the author is nonetheless conscious of the report's limits and flaws.

CHAPTER TWO

RELATED TERMS AND DEFINITIONS

Nutrition for health

Nutrition is the study of nutrients in food, how the body uses them, and the relationship between diet, health, and disease. The study of nutrition also looks at how food choices might reduce the chance of being sick, what happens when someone eats too much or too little of a certain nutrient, and how allergies work. Nutrients are a source of nutrition. Proteins, carbohydrates, lipids, vitamins, minerals, fiber, and water are among the nutrients. (Akirov et al., 2022)

Food for health

Nutrition is the study of nutrients in food, how the body uses them, and how diet affects health and disease. Additionally, the study of nutrition looks at how dietary choices may be utilized to reduce the chance of being sick, what happens when a person eats too much or too little of a nutrient, and how allergies work? Nutrients provide food its nutrition. Nutrients include vitamins, minerals, fiber, water, proteins, carbohydrates, and lipids. (Akirov et al., 2022)

Diabetes

Proteins, carbs, lipids, and other nutrients are the main components of food, which the body of an organism uses to sustain growth, vital processes, and the synthesis of energy. The process of digestion facilitates the body's better absorption and use of the nutrients included in the food it eats.

Food Customs

The phrase "eating habits" (or "food habits") refers to the reasons and methods behind why individuals eat, the foods they choose to eat, who they eat with, how they get, store, consume, and dispose of food. People's eating behaviors are influenced by a variety of personal, social, cultural, religious, economic, environmental, and political issues.

Physical exercise

Any skeletal muscle-driven motion that requires an energy expenditure is referred to as "physical activity." Physical activity includes exercise and other motion-demanding tasks including playing, working, utilizing active transportation, doing housework, and taking part in leisure pursuits. Regular exercise has been demonstrated to help prevent and treat non-communicable diseases (NCDs), such as diabetes, heart disease, stroke, and a variety of cancers. It also promotes a healthy body weight, decreases blood pressure, and improves mental clarity, wellness, and quality of life. (WHO) (Akirov et al., 2022)

Glucometer

An equipment used to monitor blood glucose levels is called a glucometer.

Blood pressure (BP)

The force of your blood against the walls of your arteries is measured as blood pressure. With each beats, your heart pumps blood into your arteries. Blood pressure will be at its highest if your heart is pounding and pumping blood. Systolic pressure is the technical word for it. (Akirov et al., 2022)

Cholesterol level

There is a waxy, fat-like substance called cholesterol present in every cell of your body. Your body needs cholesterol to make hormones, vitamin D, and compounds that help with food digestion. Cholesterol may also be found in foods made from animals, such as cheese, meat, and egg yolks.

Heart disease

Heart disease is the umbrella term for any condition that affects the heart. There are several kinds, some of which you would want to avoid. According to the Centers for Disease Control and Prevention (CDC), heart disease is the leading cause of death in the country.

Hyperglycemia

Low blood sugar, often known as hypoglycemia or a "hypo," occurs when the quantity of glucose (sugar) in your blood drops too low. Diabetics are the most commonly affected, especially if they take insulin .

Polycystic ovary syndrome (PCOS)

Females of reproductive age often have polycystic ovarian syndrome (PCOS), a hormonal disorder. Menstrual periods in women with PCOS may be irregular or prolonged, and they may also have higher-than-average levels of androgens, or male hormones. The ovaries may create a large number of small sacs (follicles) packed with fluid, but they may not always release eggs.

Ultrasounds

a process that examines inside organs and tissues using high-energy sound waves. On a computer screen, the echoes created by the sound waves create images of the tissues and organs (sonogram). Diseases like cancer may be diagnosed with the use of ultrasound. It may also be used during medical procedures like biopsies and during pregnancy to examine the fetus (unborn child). Likewise known as ultrasonography.

CHAPTER THREE

TREATMENT AND OBSERVATIONS

Treatment for gestational diabetes includes:

- alterations in way of life
- taking blood sugar readings
- Medications, if required

Keeping blood sugar levels under control keeps both mother and child healthy. The mother might also benefit from close supervision by avoiding difficulties during pregnancy and delivery.

Lifestyle of mother

Mother's lifestyle, including what she eats and how she exercises, is crucial to maintaining good blood sugar levels. The mother's body is working very hard to support her developing kid, hence doctors do not advise decreasing weight during pregnancy. However, a doctor may assist in establishing weight gain objectives depending on her pre-pregnancy weight.

Diet changes

Fruits, vegetables, whole grains, lean protein, and foods rich in nutrients and fiber that are also low in fat and calories make up a healthy diet. Highly processed carbohydrates, such as sweets, are also limited. A woman may seek assistance from a qualified dietitian or a diabetes educator in developing a meal plan based on her present weight, desired weight increase during pregnancy, blood sugar level, exercise routine, food preferences, and spending limit.

Stay active always

Every woman should include regular exercise in her health plan before, during, and after pregnancy. Exercise decreases blood sugar levels, and it also has the additional benefit of easing some of the usual pregnant aches and pains including back pain, muscle cramps, swelling, constipation, and insomnia.

If your doctor approves, try to exercise moderately for 30 minutes most days of the week. Start softly and increase your activity level gradually if you haven't been active recently. Swimming, cycling, and walking are all healthy options for expecting mothers. Even routine tasks like cleaning and gardening count.

Monitor regular blood sugar:

In order to ensure that her blood sugar level remains within a safe range while she is pregnant, the maternal health care team may urge her to check it four or more times each day, ideally right after meals and first thing in the morning.

Medication of mother

Mother could need insulin shots if food and exercise are insufficient to reduce her blood sugar. 10% to 20% of pregnant women with gestational diabetes use insulin to achieve their blood sugar targets. While some medical professionals feel additional study is necessary to prove that oral medications are as safe and efficient as injectable insulin to treat gestational diabetes, others recommend using an oral medicine to regulate blood sugar.

Close monitoring of her baby

The maternal treatment strategy includes careful monitoring of her infant as a key component. The doctor may use several ultrasounds or other tests to monitor the baby's growth and development. A doctor may induce labor if the woman doesn't give birth by the expected time or even early. The risk of difficulties for them may rise if they deliver beyond the due date.

Follow-up after delivery

After birth and again six to twelve weeks later, the doctor will check the patient's blood sugar to ensure that it has returned to normal. You must have your risk of developing diabetes evaluated at least every three years if your tests are normal, as they usually are.

Increase your preventative measures or start a diabetes management plan with the doctor if further testing reveal type 2 diabetes or prediabetes.

Observations

The patient visits the outside department with their physical issue. A patient who is not admitted for an overnight stay but attends a hospital, clinic, or related institution for a diagnosis or treatment receives outpatient medical advice from physicians in the outside department. At this location, in the Outdoor Department, a patient with gestational diabetes arrives. Typically, the patient comes here for services, care, and admittance. According to the patients' requirements for therapy, it serves as a point of screening. It is the area of the hospital where patients are monitored while

receiving medical advice and other ancillary services.

The observation of gestational diabetes patient and their history:

Patient name	Age	History
Jasmin Akhter	28	-Month of pregnancy (5 month)

		<p>-Before becoming pregnant, she was diabetes-free.</p> <p>-She did not have diabetes when she became pregnant with her first child, but she did in the first few months with her second.</p> <p>-She checks her blood sugar 4-5 times a day, and the current level is 5.8.1.</p> <p>She now administers insulin twice daily.</p> <p>- No exercise was performed.</p>
Nasrin sultana	25	<p>- While eight months pregnant and suffering from gestational diabetes, a diabetes screening at five months revealed no diabetes.</p> <p>- The average level of diabetes is 7-8.17.</p> <p>- She didn't take any insulin or medications.</p> <p>- The doctor informed him that she urgently requires two bags of blood due to a low hemoglobin level and instructed him to admit it.</p> <p>- There was no physical exercise.</p>
Sofia Begum	37	<p>- She was diagnosed with gestational diabetes when she was 1.5 months pregnant, and she is now 7 months pregnant.</p> <p>- Diabetes-free before to pregnancy.</p>

		<ul style="list-style-type: none"> - At three months, she started taking insulin twice a day. - Diabetes is checked daily four to five times, and the level is 7-9. - No exercise was performed.
Sadia Akter	23	<ul style="list-style-type: none"> -In 9 months, she knows that she has diabetes. -She is suffering from urine infection that why she takes glucose. By taken glucose she got in diabetic. -Level of diabetes is 7.5-8. -No insulin is taken and the doctor said her to admit him immediately. -No physical activity was taken.

Example of a Meal Plan for Pregnant Diabetes

You must consume a range of healthful foods for a balanced diet. Making healthy eating choices may be aided by reading food labels. (Amodio et al., 2022)

In general, you should eat:

- There are many entire fruits and veggies.
- Lean proteins and healthy fats in moderation
- Moderate quantities of starchy vegetables like maize and peas together with whole grains like bread, cereal, pasta, and rice
- There should be less sugary meals such soft drinks, fruit juices, and pastries.

Three modest to moderate-sized meals and one or more snacks each day are recommended. Never miss meals or snacks. Keep the quantity and dietary categories (proteins, fats, and carbs) roughly

same from day to day. You can maintain steady blood sugar levels by doing this.

This example meal plan will serve as your guide until you consult with a licensed dietitian to develop a personalized one.

Breakfast (2 carbs=30g)	Whole-wheat bread, one piece (1 carb) 1 egg 1 cup of milk without fat (1 carb)
Snack (1 carb=15g)	four to six full wheat crackers (1 carb) Cheddar cheese, one ounce
Lunch (3 carbs=45g)	2 pieces of whole grain bread (2 carbs) Lettuce and tomato with 3 ounces of turkey 1 cup of raw vegetables 1 cup of fruit (1 carb) 1 cup of milk without fat (1 carb)
Snack (2 carbs=15-30g)	2 cups of peanut butter 1 little apple (1 carb) 3 popcorn in cups (1 carb)
Dinner (3 carbs=45g)	Skinless chicken breast, 4 ounces one baked potato, medium (2 carbs) 2 tablespoons of sour cream with less fat one cup of broccoli salad 1- to 2-tbsp. salad dressing 1 cup of milk without fat (1 carb)

Snack_1-2 carbs-15-30g)	1/2 banana (1 carb) 2 tablespoons nuts 1/2 cup plain nonfat Greek yogurt (1/2 carb)
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CHAPTER FOUR

Pediatrics Department

The institute's beating heart is the Faculty of Pediatrics. The faculty's activities align with the institute's goals for patient care/service, education, and research. Services in the areas of nutrition, gastroenterology, respiratory medicine, cardiology, neurology, and neonatology are currently being provided. The faculty has a suitable number of experienced professors, registrars, young physicians, nurses, and other staff members. (Amodio et al., 2022)

The complete spectrum of ward tasks and level-II neonatal care are both included in the inpatient workload. Regular outpatient services with a well-equipped echo lab, asthma center, disability management center, ORT corner, EPI corner, ECD center, audiometry unit, physiotherapy unit, and emergencies are included in the outpatient burden. There are resources available for ongoing research, including joint initiatives with other clinical and epidemiological departments at their institution. A special center for pediatrics training is also made possible by the physical setup and other logistical factors.

Special Service Centre's in Pediatrics

Child asthma center

At the OPD, a child asthma center provides care for children with asthma. Every patient with asthma is registered at the facility, and a questionnaire is completed for each patient to record the onset, severity, co-occurring allergy diseases, and other risk factors for asthma. Each patient is evaluated by the consultant, and any required tests—like spirometry and peak flow measurement—are completed at the facility. The professional asthma educator informs each patient about the illness of asthma, potential risk factors, acute and chronic treatment of asthma, usage of inhalers, and spacers. To determine better management in the context of our nation, many study procedures are being produced. A total of 1564 patients used nebulization at this facility in 2012. (Amodio et al., 2022)

Centre for detection of heart disease

By assessing a patient's medical history, doing a physical examination, ordering an ECG, and

performing a Color Doppler Echocardiogram, this facility is working to identify congenital heart disease, rheumatic fever, and rheumatic heart disease at an early stage. Dr. Rezaul Haque Shamim, a pediatric cardiologist by training, is in charge of this unit's general management. In 2012, this facility performed an echocardiogram on 47 individuals.

Audiometry unit

Children who are suspected of having hearing loss are put through a hearing screening exam. The device is managed by a skilled audio metrics. In all, 63 kids were evaluated from this location in 2012.

Physiotherapy unit

When required, this facility offers physiotherapy to kids with lung diseases and kids with physical disabilities. The facility employs one physiotherapist.

Saleh Child Development and Disability Centre (SCDDMC)

This center for children with developmental disabilities is quite significant. The SCDDMC assesses and treats children who have a variety of developmental issues, such as motor delay, mental retardation, speech delay, vision and hearing impairment, convulsion, etc. Working with these developmentally delayed kids is a strong team that includes child neurologists, developmental experts, and psychologists. Through this Center, the cases are later followed up on. The cost of the therapy is really minimal. In all, 5496 individuals received assistance from this center in 2012.

ORT Corner

Daycare facilities use ORS to treat dehydrated children. For intravenous treatment, the critically dehydrated are hospitalized.

EPI Corner

In this center, children are immunized in accordance with the national EPI schedule. MMR, HIB, chickenpox, typhoid, hepatitis-A, and hepatitis-b vaccinations, among others, are now accessible at the expanded Center for a fee. According to the national EPI schedule, about 14,331 children received vaccines in 2012, and 1697 more children received paid immunizations from our extended vaccination Center.

This Pediatrics Department is split into two sections for indoor patients, one of which is paying

and the other not. Based on the mode of payment, this is split. People who pay there are in the paying department, whereas people who don't pay are in the non-paying section. (Amodio et al., 2022)

Observation-

Children admit age: 1 month to 7-10 years

Minimum & maximum admit: (8-10) patient, (14-16) patient, per day. Diseases:

Diarrhea, fever, pneumonia.

Food: supply by hospital

Doctor: always available.

Chapter Five

OBSTETRICS AND GYNECOLOGY DEPARTMENT

One of the institute's main departments, the department of obstetrics and gynecology collaborates with the pediatrics faculty and other auxiliary faculties and departments as a twin. This Institute is engaged in the curative & preventative facets of reproductive health in order to accomplish the aim of ICMH & MDG. The range of initiatives is continually using hospital- and community-based methods to address the enormous issues with maternal and perinatal health. With 8 faculty members, 3 professors, 3 associate professors, 1 assistant professor, 1 junior consultant, and 3 registrars with advanced degrees, the faculty is sufficiently staffed.

Around 8 AM, the outpatient department opens for business. In spite of all the challenges, a substantial number of patients continue to arrive daily. After registering, pregnant women and moms with gynecological and other medical issues would travel to separate rooms where they would get supervision and treatment from various categories of healthcare professionals. 16 honorary physicians and 19 medical officers who serve as assistant registrars are available round-the-clock for patient care and other duties.

Activities of the department

The institute provides services for a wide catchments area with all levels of comprehensive obstetric care as well as Gynecological services. The following are the clinical facilities.

Inpatient

- The inpatient department, which has a maximum bed capacity of 75, often handles more than 100 patients. The department has 10 cabins.
- Urine tests were formerly performed at the bedside for all necessary patients, 24 hours a day.
- To protect patient privacy, clinical examinations are conducted in the process room next to the ward.
- In a separate operation room, ultrasonography is usually performed for the chosen patients

to evaluate the health of the fetus.

- 4 labor tables, 2 observation beds, and 3 eclampsia beds are in the labor delivery room (LDR). Here, skilled midwives, nurses, and physicians provide birthing support to all laboring mothers around-the-clock. Along with the assigned health care professionals, non-government trainee community skilled birth attendants also work. A nursing station is situated at the LDR Center. Uniquely, the CS OT is situated inside the LDR to facilitate quick handling of obstetric crises and the nurse in charge may monitor all patients from a single station.
- There are now three operational operating theaters on the first level.
- Gynecological disorders account for over one-fifth of all patients admitted, and nearly all gynecological surgeries, including endoscopic surgery, are frequently carried out.
- There are now 5 beds in the post-operative ward.

Outpatient

Consultation rooms and specialty clinics for colposcopy, visual inspection by acetic acid (VIA), clinical breast examination (CBE), infertility, and treatment for reproductive tract infections (RTI) are part of the outpatient department (OPD), including Pap' screening capabilities. In the outpatient setting, there is a fully functional lactation management center, a family planning clinic, and an infertility clinic where treatments are provided on a daycare basis. IUI equipment is now available at the infertility facility. In the OPD, we also operate an adolescent clinic.

Services

In addition to routine gynecological procedures like hysterectomy and MVA, as well as specialized services like tubal surgery, including recanalization and laparoscopic surgery, hysteroscopy, colposcopy in the colposcopy clinic, lactation management in the LMC, and family planning services, the department offers emergency obstetric care around-the-clock.

For the indoor patient, this gynecology department is split into two sections. One is making a payment, while the other is not. Based on the mode of payment, this is split. People who pay there are in the paying department, whereas people who don't pay are in the non-paying section.

Observation-

Minimum & maximum admit 10-32 patients, per day. Delivery

normal: 10-12(min-max)

Delivery Cesare: 20 -30 (min-max)

Other Problem: 5-6 min, 15-20 max

Food: supply by hospital

Food type: liquid, semi-solid, solid

Doctor: always available.

CHAPTER SIX

RODIOLOGY AND IMAGINIG DIVISION

Pediatric surgery, gynecology, and obstetrics, and other clinical faculties are supported by the Department of Radiology and Imaging. The decisions made about the diagnosis and treatment of patients heavily depend on the work done by this department. We mostly have X-ray and ultrasonography equipment. With our small faculty, we now perform ultrasonography on more than 100 different body areas each day. We provide care for both inpatients and outpatients at this facility. The majority of the patients come to the department from abroad and from home.

There are qualified people working in the faculty. With our limited resources, we make an effort daily to serve all the patients who are sent to our Department for inquiry. We operate our ultrasonography for two shifts and our X-ray all day.

Nutrition Department

There are 11 employees in the nutrition and food science department, including one nutrition steward, one diet clerk, and the other eight employees. Dietary management, training, and research are the department's main areas of interest. The primary focus of this department's operations is dietary control. The tender committee was used to contract out the diet plan, and the contractor provides the food. The personnel of this department is now working to create a suitable and agreeable food plan for the patients who have been hospitalized in accordance with the government budget.

Severe acute malnutrition (SAM)

Acute malnutrition in particular poses a life-threatening hazard to children and need immediate treatment. Chronic disease may also be present. Extremely low weight for height, obvious severe wasting, or the appearance of nutritional edema are all indicators of severe acute malnutrition (SAM).

For SAM patients, the ICMH SAM department uses F-75 and F-100 feeding formula. Additionally, the hospital provides the formula.

The "starter" formula, F-75, is used to treat malnutrition in the early stages, starting as soon as

possible and lasting for 2–7 days until the kid is stable. Children who are severely malnourished cannot tolerate high fat, protein, or salt intakes. If fed too much salt or protein, they might pass away. They must be fed a diet that is strong in carbs and low in protein and salt since they also require glucose.

F-75 is carefully formulated to suit the child's demands throughout the first phase of therapy without taxing the body's systems. F-75 is used to stop fatalities. Per 100 ml of F-75, there are 75 kcal and 0.9 g of protein. Following F-75 stabilization, F-100 is administered as a "catch-up" formula to restore depleted tissues. F-100 has higher calories and protein per 100 ml, at 100 kcal and 2.9g respectively. In addition to nursing, this feeding is still occurring.

Observation:

-Age: 6-59 months.

-Patients admit 5-6 patients (per day).

-The formula is given every 2 hours. In severe cases, the formula is given every 1 h

-Breastfeeding must be continued. (Type 2 Diabetes and the Use of Real-Time Continuous Glucose Monitoring | Diabetes Technology & Therapeutics, 2022)

CHAPTER SEVEN

NICU

Due to conditions including preterm, low birth weight, perinatal hypoxia, sepsis, congenital deformities, and others, newborn newborns need specialized medical treatment. It is often used in neonatal critical care units or special care newborn units (SCANU) (NICUs). A total of 15 million infants are delivered prematurely each year across the world, 4 million of them die. Premature infants are reared anywhere, even in the United States. Every year, 3.3 million infants are born in Bangladesh, 6.5 lac of them are preterm. 75 thousand of them pass away, and premature birth accounts for 45 percent of those fatalities. The ICMH operates a 50-bed SCANU/NICU (Special Newborn Care Unit/ Neonatal Intensive Care Unit) for the care of babies with illnesses with the assistance of UNICEF and KOCIKA. This department serves as a national training hub for healthcare professionals, conducts research with cross-border cooperation, and functions as a center of excellence. (Type 2 Diabetes and the Use of Real-Time Continuous Glucose Monitoring | Diabetes Technology & Therapeutics, 2022)

Pediatric surgery

A fully operational and autonomous Ward for the department of pediatric surgery's patients. To name a few, the pediatric surgery department at ICMH has treated patients for biliary atresia, congenital diaphragmatic hernia repair, reconstructive surgery for congenital adrenal hyperplasia, rhabdomyosarcoma of the bladder and prostate, Wilm's tumor, radical nephroureterectomy, and Hirschsprung's disease. (Type 2 Diabetes and the Use of Real-Time Continuous Glucose Monitoring | Diabetes Technology & Therapeutics, 2022)

Anesthesiology Department

The expert general & regional anesthetic services offered by this department encompass all types of obstetrical, gynecological, general, and pediatric surgical operations. We offer preoperative, perioperative, and postoperative patient care. Additionally, we provide a 24-hour emergency anesthesia treatment for individuals who are pregnant. (Type 2 Diabetes and the Use of Real-Time Continuous Glucose Monitoring | Diabetes Technology & Therapeutics, 2022)

Clinical Assistance

- In the PACU room, risk factors for surgical procedures are evaluated for all patients scheduled for routine surgery.
- Three well-equipped operating rooms provide the surgical services.
- those who have had surgery The expert general & regional anesthetic services offered by this department encompass all types of obstetrical, gynecological, general, and pediatric surgical operations. We offer preoperative, perioperative, and postoperative patient care. Additionally, we provide a 24-hour emergency anesthesia treatment for individuals who are pregnant.

Kangaroo Mother Care (KMC)

Preterm newborns may be cared for using the kangaroo mother approach. The technique is carrying newborns while maintaining skin-to-skin contact, often by the mother. In order to effectively address a baby's requirements for warmth, nursing, infection prevention, stimulation, safety, and love, kangaroo mother care (KMC) is recommended. Low-birth-weight baby is placed vertically between the mother's chests like a kangaroo and works as an incubator for warming.

The newborn is kept warm in the mother's pouch and is in close proximity to the breasts for continuous feeding. It offers an alternative to incubator care while keeping the mother nearby.

The phrase "kangaroo position" refers to skin-to-skin contact (SSC) between the mother and the infant in a purely vertical position..." The newborn will be put below the mother's clothing and in the space between her breasts. As soon as possible after delivery, SSC should be started.

Depending on the length, it might be either continuous or intermittent. (Type 2 Diabetes and the Use of Real-Time Continuous Glucose Monitoring | Diabetes Technology & Therapeutics, 2022)

Appendix

Source: Website, ICMH

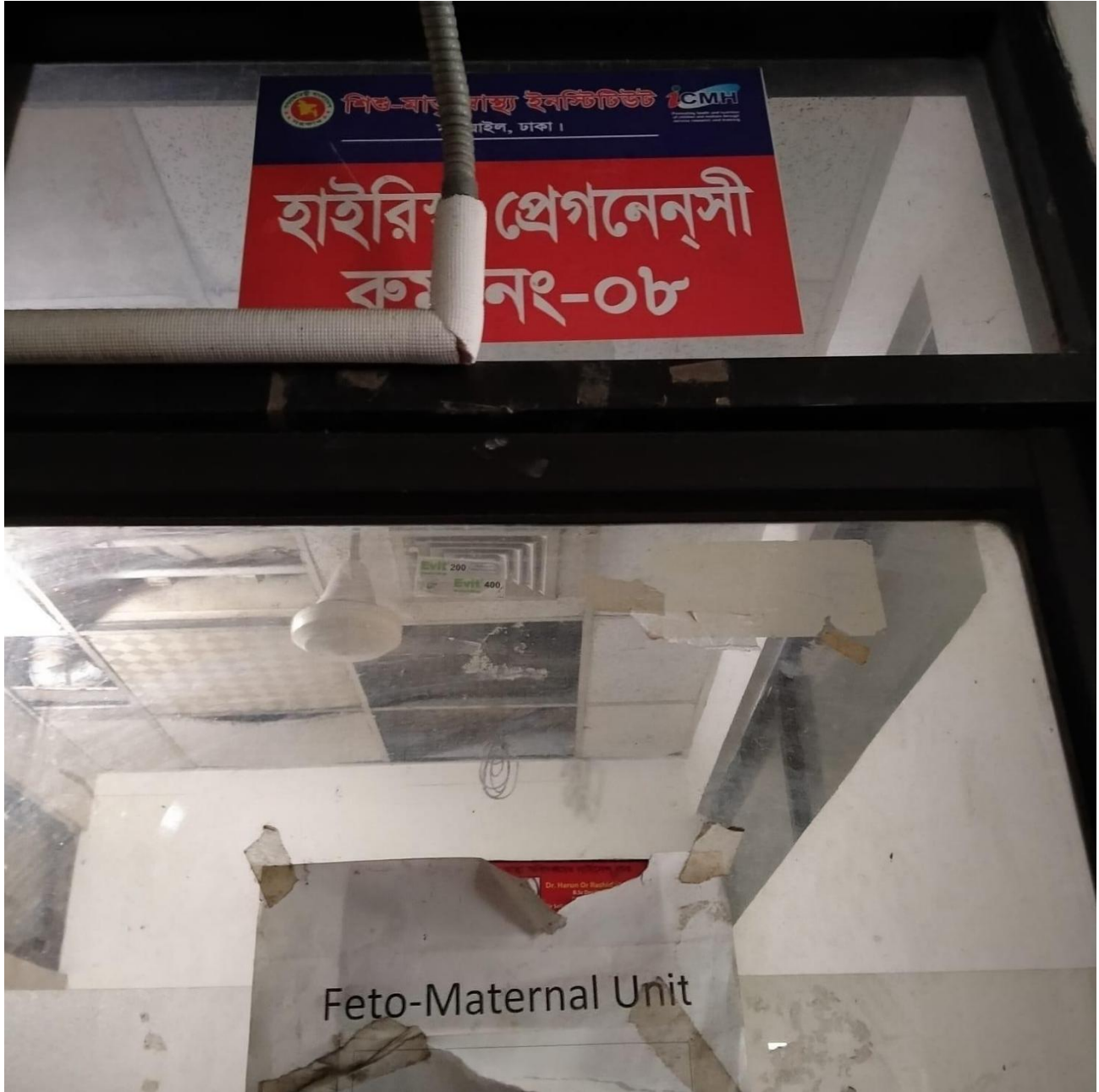


Source: Website, ICMH



















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