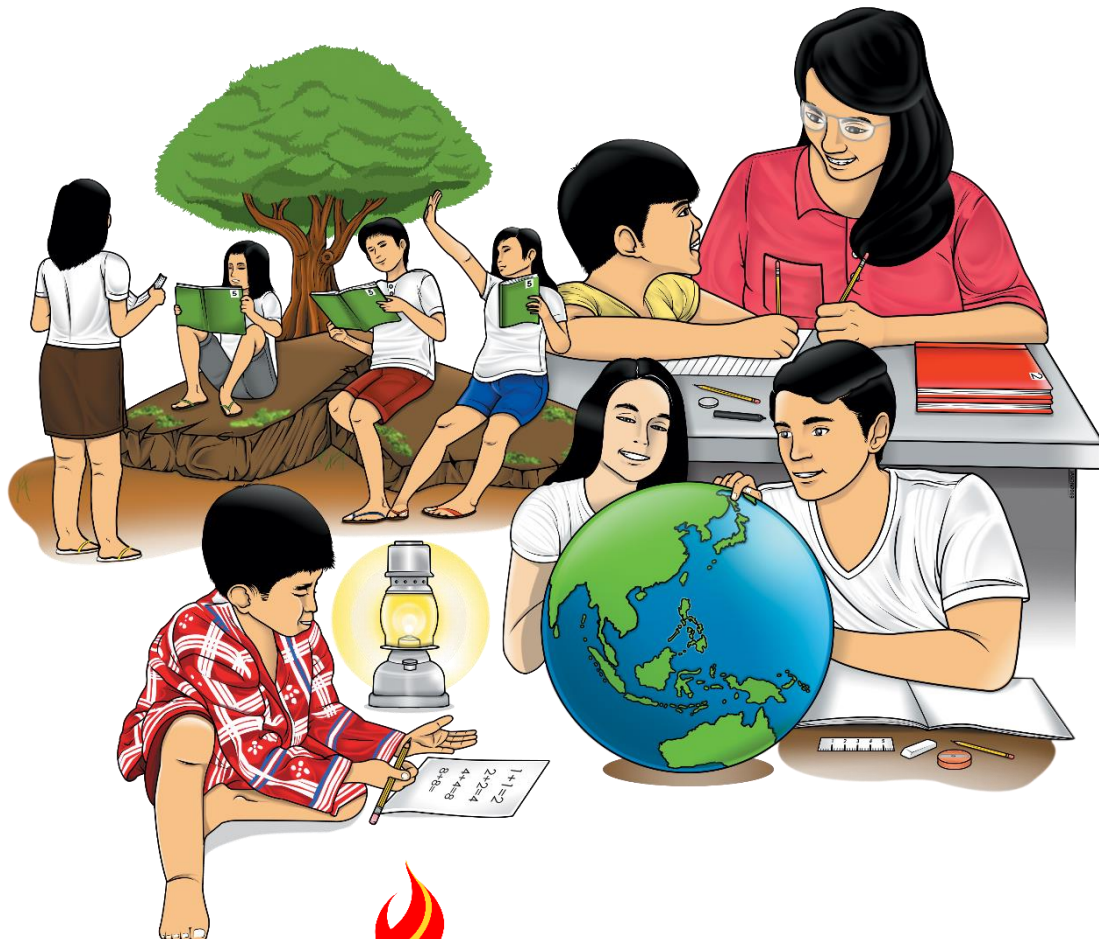


HEALTH

Quarter 2 – Module 6: Tender Love and Care



Health – Grade 8
Alternative Delivery Mode
Quarter 2 – Module 6: Tender Love and Care
First Edition, 2020

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HEALTH

Quarter 2 – Module 6: Tender Love and Care

Introductory Message

This Self-Learning Module (SLM) is prepared so that you, our dear learners, can continue your studies and learn while at home. Activities, questions, directions, exercises, and discussions are carefully stated for you to understand each lesson.

Each SLM is composed of different parts. Each part shall guide you step-by-step as you discover and understand the lesson prepared for you.

Pre-tests are provided to measure your prior knowledge on lessons in each SLM. This will tell you if you need to proceed on completing this module or if you need to ask your facilitator or your teacher's assistance for better understanding of the lesson. At the end of each module, you need to answer the post-test to self-check your learning. Answer keys are provided for each activity and test. We trust that you will be honest in using these.

In addition to the material in the main text, Notes to the Teacher are also provided to our facilitators and parents for strategies and reminders on how they can best help you on your home-based learning.

Please use this module with care. Do not put unnecessary marks on any part of this SLM. Use a separate sheet of paper in answering the exercises and tests. And read the instructions carefully before performing each task.

If you have any questions in using this SLM or any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator.

Thank you.



What I Need to Know

This module was designed and written with your mind. It is here to help you to be aware of pregnancy-related concerns and prenatal care, importance of maternal nutrition during pregnancy, essential newborn protocols, and advantages of breastfeeding to have a harmonious relationship in a family.

The scope of this module permits it to be used in many different learning situations.

The language used recognizes the diverse vocabulary level of the students.

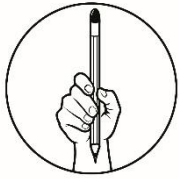
The lessons are arranged to follow the standard sequence of the course. But the order in which you read them can be changed to correspond with the textbook you are now using.

Lesson 1: Newborn Screening & APGAR scoring System

After going through this module, you are expected to:

Discuss the importance of newborn screening, and the APGAR scoring system for newborns (H8FH-IIe-f-32)

- a. categorize the guidelines in newborn care;
- b. define what APGAR scoring system is;
- c. recognize the importance of newborn screening;
- d. compute an APGAR score of a newborn child.



What I Know

In this activity, you will be tested about your prior knowledge of the lesson in this module.

Directions: FACT OR BLUFF. Write FACT if the statement is correct or BLUFF if the statement is wrong. Write it on the space provided before the number.

- _____ 1. A baby who scores a 7 or above in APGAR scoring system is considered in good health.
- _____ 2. APGAR stands for Appearance, Pulse, Grimace, Activity and Respiration.
- _____ 3. The clamping of the cord will be done after 8-10 minutes.
- _____ 4. Newborn babies should undergo a newborn screening as reflected in R.A. No. 9288.
- _____ 5. The babies can control hands and rolls over during 10 to 11 months old.
- _____ 6. 9 months to 1 year is the age of immunization of a baby for MMR (Measles, Mumps, Rubella).
- _____ 7. Galactosemia is a disorder tested for newborn screening.
- _____ 8. Newborn means a child from the time of complete delivery to 5 years old.
- _____ 9. The scoring system in APGAR is on a scale of 0 – 5.
- _____ 10. Skin color of a new born baby is categorized to the appearance in APGAR scoring system.
- _____ 11. The APGAR test is usually given twice, 1st minute then 5 minutes after birth.
- _____ 12. Ten is the highest possible score in APGAR Test.
- _____ 13. Weighing is categorized as time bound procedure of newborn screening.
- _____ 14. 0-1 month old and 7 years old is the age of immunization for BCG (Anti-TB)
- _____ 15. The newborn baby starts to suckle and smile from 0-1 month old.

Lesson**1****Newborn Screening and APGAR Scoring System**

Essential newborn care is a comprehensive strategy to improve the health of the newborn through interventions before conception, during pregnancy, soon after birth, and in the post-natal period.

**What's In**

Directions: Read the statement in each item and choose the correct word/s in the box on what is meant by the statement. Write your answer on the space provided before the number.

Blood

APGAR Test

Seve

Newborn Screening

RA 9288

Metabolic

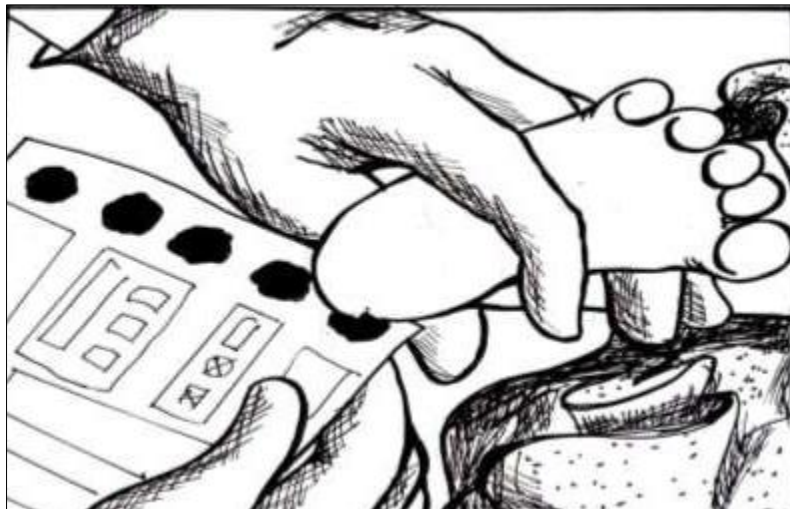
- _____ 1. A public health program that identifies infants who are affected by certain genetic/metabolic/infectious conditions.
- _____ 2. Republic Act for Newborn Screening.
- _____ 3. A scoring system used for newborns right after delivery and after 5 minutes.
- _____ 4. A test result score that considers a good healthy baby.
- _____ 5. A body fluid taken from the baby that will be used in Newborn Screening.



What's New

NEWBORN SCREENING

- Newborn Screening Act of 2004 (RA 9288)
- Newborn screening (NBS) is a public health program that identifies infants who are affected by certain genetic/metabolic/infectious conditions.
- Early identification and timely intervention can lead to major reduction of morbidity, mortality, and associated disabilities in affected infant.



Illustrated by: Mary Joy B. Oliverio

1. Are you familiar with newborn screening?

2. What do you think is the reason for screening newborn baby?



What is It

A new baby at home is exciting but can also be scary too. Newborns have other needs including regular feeding and changing diapers. Babies have health issues that range from older children to grown-ups.

According to Republic Act 9288:

Newborn means an infant up to 30 days old from the time of completing birth.

Newborn screening: Newborn Screening (NBS) is a simple procedure to find out whether the baby has congenital metabolic disorder which, whether left untreated, can lead to mental retardation or even death.

Importance of neonatal or newborn screening: Most babies with metabolic disorders look "normal" at birth. Well before clinical signs and symptoms emerge, metabolic disorders can be detected by doing NBS. And as a result, treatment should be taken early to prevent complications from untreated conditions.

When is screening done? It is done 24 hours after delivery and the baby should already be fed by breastfeed and preventing hypoglycemia (decrease sugar in the blood). The baby must be screened again after 2 weeks for more accurate result.

How is newborn screening done? A few drops of blood were collected from baby's heel, blotted onto a special absorbent filter board, and then sent to a Newborn Screening Center (NSC).

Who will collect the sample for newborn screening? The NBS blood sample may be collected by one of the following: physician, nurse, medical technologist or competent midwife.

Where is newborn screening available? Newborn screening is available in hospitals, lying-ins, rural health departments, community centers and several private clinics. If delivered at home, babies can be taken to the nearest hospital offering newborn screening.

When are newborn screening results available? It can be claimed the findings from the health facility where NBS was conducted. The standard NBS findings are available within seven (7) to fourteen (14) working days from the time samples are obtained at the NSC. Immediately, the health facility relays positive NBS results to the parents. Ensure correct address and telephone number given to the healthcare facility. A negative screen indicates standard NBS product. A positive screen means taking the baby back to his/her healthcare provider for further examination.

What should be done when a baby is tested positive in the NBS?

Babies with promising outcomes shall immediately referred to a confirmatory test and further specialist in management. In case there is no specialist in the area; the NBS secretariat office will assist their attending physician.

What are the disorders tested for newborn screening? The disorders tested for newborn screening are following:

1. Congenital Hypothyroidism (CH)
is a partial or total loss of thyroid gland (hypothyroidism) function that affects infants from birth (congenital). If left untreated, it will result into severe growth and mental retardation.
2. Congenital Adrenal Hyperplasia (CAH)
is a group of rare autosomal inherited recessive disorders characterized by a deficiency of one of the enzymes required to produce specific hormones. If left untreated, it will result to death.
3. Galactosemia (GAL) is a disorder that affects how a simple sugar called galactose is processed by the body; Most foods contain a small amount of galactose. It mostly forms part of a larger sugar called lactose, which is present in all dairy products and many formulas for children. It will result to death and cataract.
4. Phenylketonuria (PKU)
is an hereditary condition that raises blood levels of a substance called phenylalanine. It will result to severe mental retardation.
5. Glucose-6-Phosphate-Dehydrogenase Deficiency (G6PD Def.) is a genetic condition that exists in males, almost exclusively. The disease primarily affects the red blood cells, which bring oxygen in the body from the lungs to tissues. It will result to severe anemia, jaundice, kernicterus.
6. Maple Syrup Urine Disease (MSUD) is a rare genetic condition marked by a lack of an enzyme complex necessary for the body to break down the three branched-chain amino acids leucine, isoleucine and valine. This will results in neurological damage, coma, death or mental disability if left untreated.

The goal of the Critical Newborn Care Protocol was to dramatically reduce infant deaths in the country.

Protocol will pave the way for cutting down on neonatal deaths. Important Newborn Care is a holistic approach to improve the health of the baby by preconception procedures, during pregnancy, shortly after birth. This approach will focus on the first few hours of the child's life by providing evidence-based vital child care with the

manual that would guide the health workers and medical practitioners. The laws are divided into limits and non- time limits plus excessive procedures.

Time bound procedures should be conducted regularly first including:


1. Immediate drying
2. Skin to skin contact
3. Clamping of the cord after 1-3 minutes
4. Non-separation of the newborn from the mother
5. Breastfeeding initiation.

Non-time bound interventions include:

1. Immunizations
2. Eye care
3. Vitamin K administration
4. Weighing
5. Washing
6. Routine suctioning
7. Routine separation of newborn for observation
8. Administration of prelacteals like glucose water or formula.

APGAR Scoring System

APGAR score is a test to be given to newborns right after their birth. **APGAR** means **A**ppearance (skin color), **P**ulse (heart rate), **G**rimace (reflex response), **A**ctivity (muscle tone), and **R**espiration (breathing rate). Dr. Virginia Apgar created it in 1953, when she presented five indicators that could be determined quickly and without interfering with the infant’s care.

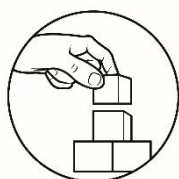
APGAR Score for Assessing Newborns				Total Points
	0 point	1 point	2 points	
Appearance (Skin Color)	pale or blue	pink body, blue extremities	Completely pink	
Pulse (Heart Rate)	absent	Below 100 bpm	Over 100 bpm	
Respiration	absent	slow and irregular	Vigorous cry	
Grimace (Reflex Irritability)	flaccid	Some flexion of extremities	Active motion (coughs, sneezes, or pulls away)	
Activity (Muscle tone)	absent	Arms and legs flexed	active movement	

Severely depressed	0-3
Moderately depressed	4-6
Excellent condition	7-10

What Does The Score Mean?

The test result is in good health if a baby scores 7 or above. A lower score doesn't mean that your baby is unhealthy. It means that your baby may need some immediate medical care, such as suctioning of the airways or oxygen to help him or her breathe better. When to check the APGAR score, it should be the 1st 1 minute, then 2nd checking is after 5 minutes. Always promote rooming-in process (breastfeeding, mother-infant bonding). Check for imperforated anus (birth defect undeveloped anus), by checking the temperature using rectal thermometer in order to monitor the temperature of the newborn.

Daily Dietary Allowances for Infants: Routine suctioning Breastmilk for a newborn, 0 to 6 months is sufficient to meet the nutritional needs.



What's More

Activity 1.1

In this activity, you will learn to categorize the guidelines on newborn care whether it is time bound or non-time bound.

Directions: Categorize the guidelines on newborn care written on the pool of words to time bound or non-time bound column on the table. Write your answer on the table.

Immunized drying	weighing
Immunization	breast feeding
Skin to skin contact	washing
eye care	routine suctioning
clamping of the cord newborn	non-separation of the from the mother

Time Bound	Non-Time Bound

Activity 1.2

In this activity, you will learn how to score and interpret the APGAR score test for new born babies.

Directions: Compute the APGAR score of the situation on the box. Check the scores in the table according to the findings in the situation given. Give the interpretation based on the computed APGAR score.

The baby undergone an APGAR test. The findings of the test were the following: The baby has a pink body and blue extremities, hear beat is less than 100 beats per minute, good breathing with crying, grimace or noticeable facial movement and active and spontaneous movement of the limbs.

Criteria	0	1	2
Color			
Heart Rate			
Respiration			
Reflex Response			
Muscle Tone			
TOTAL			



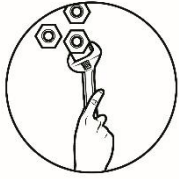
What I Have Learned

In this activity, you will learn to define the meaning of newborn screening.

Directions: Fill in the missing words on the blank in the sentence. Look for the word/s in the box for your guide.

Newborn	test	30 days
Essential Newborn Care		Congenital metabolic disorder

1. _____ means a child from the time to complete delivery to _____.
2. Newborn Screening (NBS) is a simple procedure to find out if the baby has _____ that may lead to mental retardation or even death if left untreated.
3. _____ is a comprehensive strategy to improve the health of the newborn through interventions before conception, during pregnancy, soon after birth and in the post-natal period.
4. APGAR score is a _____ given to newborns soon after birth. APGAR stands for **A**ppearance (skin color), **P**ulse (heart rate), **G**rimace (reflex response), **A**ctivity (muscle tone), and **R**espiration (breathing rate).



What I Can Do

Now that you understand the importance of a Newborn Screening, let us challenge your drive! Choose only 1 out of 2 activities given on the next page

Activity 1: Poem Writing

Directions: Create a 2- stanza poem about the importance of newborn screening and APGAR scoring system for newborns. Make sure that the content of your poem can convince mothers to undergo screening. Compose your poem using the format below.

(Title of your Poem)

Activity 2: Song Composition

Directions: Compose a song about the importance of newborn screening and APGAR scoring system for newborns. Record your composition through video format and upload it in your Facebook account using this hashtag: #NewbornCare.



Assessment

In this activity you will be tested on what you have learned about the topic in this module.

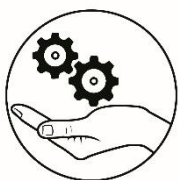
Test I. Directions: Read the questions and choose the letter of the correct answer. Write the letter of the correct answer on the space provided before the number.

- _____ 1. What public health program aimed at the early identification of infants who are affected by certain genetic/metabolic/infectious conditions?
- A. Health Orientation C. New Born Screening
B. Immunization D. Pregnancy Test
- _____ 2. What term is used when a child from the time to complete delivery to 30 days old?
- A. Adult B. Infant C. Newborn D. Teenager
- _____ 3. What disorder of a newborn baby that has a partial or complete loss of function of the thyroid gland (hypothyroidism) that affects infants from birth (congenital)?
- A. Congenital Adrenal Hyperplasia
B. Congenital Hypothyroidism
C. Galactosemia
D. Phenylketonuria
- _____ 4. What disorder of the newborn baby that is characterized by group of rare inherited autosomal recessive disorders characterized by a deficiency of one of the enzymes needed to make specific hormones?
- A. Congenital Adrenal Hyperplasia C. Galactosemia
B. Congenital Hypothyroidism D. Phenylketonuria
- _____ 5. What newborn disorder that affects how the body processes a simple sugar called galactose?
- A. Congenital Adrenal Hyperplasia C. Galactosemia
B. Congenital Hypothyroidism D. Phenylketonuria
- _____ 6. What disorder that is inherited which increases the levels of a substance called phenylalanine in the blood?
- A. Congenital Adrenal Hyperplasia C. Galactosemia
B. Congenital Hypothyroidism D. Phenylketonuria

- _____7. Which of the following activities that is considered as time bound procedure and should be routinely performed first?
- A. Breastfeeding initiation
 - B. Immunizations
 - C. Routine suctioning
 - D. Weighing
- _____8. Which of the following activities that is considered as non-time bound intervention?
- A. Clamping of the cord
 - B. Immediate drying
 - C. Immunization
 - D. Skin to skin contact
- _____9. How many scores or points do the newborn babies need for them to be considered to have an excellent health condition?
- A. 6
 - B. 7
 - C. 8
 - D. 9
- _____10. If the baby scored 2 in respiration, what does it mean?
- A. The baby has 100 beats per minute.
 - B. The baby coughs, sneezes or pulls away.
 - C. The baby has a good breathing with crying.
 - D. The baby has an active and spontaneous movement of the limbs.

Test II. Directions: Read the situation about the APGAR score test below. After reading answer the question and give a short explanation about your answer. Write your answer on the space provided. (5 points)

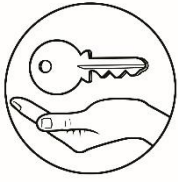
Baby Cyra has undergone an APGAR test. The findings of her test are the following: Her skin color is pale. Her heart rate beats less than 100 per minute. Her respiration is slow and irregular. She coughs, sneezes, or pulls away. She has some flexion of her extremities. What is the score of Baby Cyra's APGAR test? What recommendations can you give to the parents of Baby Cyra?



Additional Activities

Let the Community Know!

Directions: Create a pamphlet or leaflets containing factual information of APGAR scoring. Do this in a short sized bond paper. It can be into writings or computerized.



Answer Key

What I Know

1. FACT
2. FACT
3. BLUFF
4. FACT
5. BLUFF
6. FACT
7. FACT
8. BLUFF
9. BLUFF
10. FACT
11. FACT
12. FACT
13. BLUFF
14. FACT
15. FACT

What's In

1. Newborn Screening
2. RA 9288
3. APGAR Test
4. Seven
5. Blood

What's More

Activity 1.1

Time Bound

Immediate drying

Skin to skin contact

- Clamping of the cord
- Non-separated of the new born from the mother

Breastfeeding initiation

Non time bound

Immunization

Eye care

Weighing

Washing

Routine suctioning

What I Have Learned

1. new born
2. 30 days
3. Congenital
- metabolic disorder
4. Essential
- newborn care
5. Test

What's More

Activity 1.2

Color-1

Heart rate-1

Respiration-2

Reflex Response-1

Muscle tone-2

Total-6 the baby is unhealthy

Assessment

Test I

1. C
2. C
3. B
4. A
5. C
6. D
7. A
8. C
9. B
10. C

Test II

Answer - 5

References

Congenital Hypothyroidism. Genetics Home Reference. June 23, 2020.
<https://ghr.nlm.nih.gov/condition/congenital-hypothyroidism>

Congenital Adrenal Hyperplasia. National Organization for Rare Disorders. <https://rarediseases.org/rare-diseases/congenital-adrenal-hyperplasia/>

Galactosemia. Genetics Home Reference. June 23, 2020.
<https://ghr.nlm.nih.gov/condition/galactosemia>

Glucose-6 Phosphate Dehydrogenase Deficiency. Genetics Home Reference.

June 23, 2020. <https://ghr.nlm.nih.gov/condition/glucose-6-phosphate-dehydrogenase-deficiency>

Newborn Screening <https://images.app.goo.gl/pXUn3kWWcttjHqS7>

Phenylketonuria. Genetics Home Reference. June 23, 2020.
<https://ghr.nlm.nih.gov/condition/phenylketonuria>

Physical Education and Health 8, Learner's Module. Department of Education, Philippines: Vicarish Publication and Trading, Inc., 2013:276 - 279.

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