For Regions I and II Mariano Marcos Memorial Hospital and 4F/5F MMMHMC Laboratory Bldg., Brgy. 6, San Julian, Batac City, Ilocos Norte Telephone: (077) 677-3161

NSC-NL Responds to NBS Challenges



also present.

he effective and efficient implementation of the Newborn Screening Program in Ilocos Region and Cagavan Valley is primarily influenced by the collaborative efforts of the Department of Health-Regional Offices (ROs) 1 and 2. the NSC-Northern Luzon (NSC-NL), and their stakeholders," affirmed UPM Chancellor Carmencita Padilla during the initial accreditation of NSC-NL in May 2017.

Thus, with this marching order, NSC-NL hosted the 1st Northern Luzon Cluster Meeting at Mariano Marcos Memorial Hospital and Medical Center, Batac City, Ilocos Norte, on September 12, 2017.

14th National . . . from page 1

partnership of the continuity clinics and endocrinologists, special considerations in premature infants, developmental outcomes in Congenital Hypothyroidism, newborn hearing screening, and the Rare Disease Act. A special plenary on hemoglobinopathies was also conducted, with topics on challenges in screening and confirmatory testing in thalassemias, overview of the current status of screening for Awarding of Performing Health Facilities in Cagayan Valley, hemoglobin disorders in the country, efforts to characterize thalassemia in the Philippines, and implications and October 6, 2017. considerations in genetic counseling for thalassemias.

Aside from the lectures, the hospitals that comprised the Philippine Newborn Screening Project, which started newborn screening in the Philippines in 1996, were honored and awarded with NBS 20th year commemorative book.

Organized by the Newborn Screening Society of the Philippines, Inc. (NSSPI), this year's convention was presented by the NSRC and co-presented by United Laboratories, Inc. and PerkinElmer, Inc. It was supported by all the Newborn Screening Centers (NSCs) in the country and RO 2 Program Manager, gave the closing remarks. United Laboratories, Inc. MJTumulak

The meeting was attended by the DOH-RO 1 NBS Team composed of Adrian Doctolero. NBS Program Manager: Nicole Marie Bugarin and Manuel Fernandez III. regional NBS coordinators: and Vanessa Mabalo. NBS Continuity Nurse at Ilocos Training and Regional Medical Center. Ma. Elouisa

Reyes, Officer-in-Charge (OIC) of NSRC, and all NSC-NL

staff led by its Unit Head, Dr. Ma. Paz Virginia Otayza, were

The important role of DOH-ROs in training the newborn screening facilities (NSFs) and in sustaining a strong network of NBS referral system was discussed. NSRC committed to provide updates and technical assistance to ensure a strengthened program implementation in Regions 1 and 2. The NSC-NL, on the other hand, assured its program partners that it would enhance its work flows to provide the best health outcomes for patients. AJAlmazan

Cagayan Valley Brings Back Its NBS

In celebration of NBS Week, DOH-RO 2 brought back the which was held at Hotel Carmelita. Tuquegarao City. on

Attended by NBS Coordinators from various NSFs in Batanes, Cagayan, Isabela, Nueva Vizcaya, and Quirino Province, the program recognized facilities with exemplary performance in newborn screening. The Newborn Screening Exemplary Awards are given to NSFs whose performance rating meets the criteria set by the DOH-RO for two consecutive years. The event also included a program update delivered by Anthony James Almazan, NSC-NL Program Manager. An open forum was facilitated by Lucia Balisi, DOH-RO 2 NBS Coordinator, while Dr. Brian Niño Galapia, DOH-

For Visavas West Visayas State University Medical Center E. Lopez St., Jaro, Iloilo City Telefax: (033) 329-3744 Email: nscvis@gmail.com

2nd Visayas NBS Awards Cite Best NSFs





Top three finishers in the NBS Fun Run held in Bacolod City organized by DOH-RO 6, PHO Negros Occidental, and CHO Bacolod.

Visavas Regions Kicks Off First Simultaneous Fun Run

In celebration of NBS Week, NSC-V together with the NBS Coordinators of DOH-ROs 6, 7, and 8 conducted the First Visavas-Wide Simultaneous Fun Run.

The activity was the first for Regions 6 and 8, while it was the third for Region 7. Various NSFs were invited to the fun run. Even various runners from various organizations joined in the event as well. There were also other activities such as zumba, parlor games, awarding of the logo making contest, and free newborn screening collection.

The simultaneous fun run was conducted through the efforts of NBS Coordinators from the different regions of Visavas: Dr. Renilvn Reves, Grace Panes, and Florence Osano from Region 6; Dr. Hayce Famor-Ramos and Ruff Vincent Valdevieso from Region 7; and Dr. Lilibeth Andrade and Wenonah Tutaan from Region 7.

The activity aimed to increase the awareness of people on the NBS Program as well as to continue to promote newborn screening to the different health facilities in their catchment areas. LOPanes

The organizers and staff together with the awardees of the 2nd Visayas-Wide NBS Awards.

ore than 250 facilities from various regions in the Visavas Valattended the 2nd Visavas-Wide Newborn Screening Awards at the Grand Convention Center of Cebu, Cebu City. on October 26, 2017.

Various awards such as the Exemplary Award, Achievers Award, and Special Citation Award were given to outstanding facilities that, through their hard work and passion, made newborn screening a successful program.

The event was hosted by DOH-RO 7, in cooperation with NSC-Visavas (NSC-V) and the NBS Coordinators of DOH-ROs 6, 7, and 8. Giveaways such as shirts, pins, and handwoven bags were also given to NSFs, which were represented by their respective NBS Coordinators, staff, and even officials of their respective local government units.

Ma. Elouisa Reves. OIC of NSRC, served as keynote speaker and enjoined the awardees to continue their love and care for Filipino newborns. LOPanes



Regional program managers and nurses in Visayas together with project development officers from the NSC-V.



For Mindanao

Southern Philippines Medical Center J. P. Laurel Avenue, Davao City Telephone: (082) 226-4595, 224-0337 Telefax: (082) 227-4152 Email: nbsprogram@nscmindanao.ph

DOH-RO 12 Observes NBS Week in Cotabato City

Intensifying the advocacy on ENBS was the primary objective of DOH-RO 12 when it celebrated NBS Week in Cotabato City on October 11, 2017, at the City Mall Convention Hall.

The activity started at 7:00 a.m. with a motorcade from the city plaza to the convention hall. Dr. Anna Liza G. Alo, Cotabato City Development Management Officer, delivered the welcome remarks, while Dr. Amebella G. Taruc, DOH-RO 12 Local Health Support Division Chief, gave an inspirational message. City Health Officer Dr. Suher Tadsmia Guinomla-Ibrahim and NBS Program Manager Mary Agnes Panton were also present. Dr. Conchita Abarquez, NSC-Mindanao (NSC-M) Unit Head, gave a talk about the updates on ENBS.

During the program, free newborn screening tests were given to 14 babies, and 10 NBS kits with alcohol and cotton were also given to the 8 NBS facilities who came early. Other participants were given freebies such as CDs and booklets. The program was attended by some 220 participants. including representatives from government and private NSFs. the academe, local government units, and the City Health Office of Cotabato City. RMua

DOH-RO 10 Holds ENBS Orientation Series

↑ wareness is the key to successful implementation. This Awas what DOH-RO 10 believed when it held a series of Expanded NBS (ENBS) Program Orientations at The Pearlmont Inn, Cagayan de Oro City, on September 28-29,

Attended by 50 participants composed of doctors, nurses. medical technologists, and midwives, the activity addressed the lukewarm reception to ENBS due to its bigger price tag and that it is not fully covered by PhilHealth. RAquilar



One of the batches of the orientation series held in Cagayan de Oro City



Week celebration in Cotabato City.

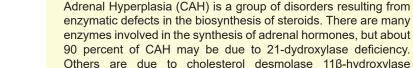
Cagayan de Oro City Celebrates

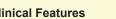


In celebration of NBS Week, DOH-RO 9, in partnership with the NBSCC Region 10, held a whole-day program at the Pearlmont Inn, Cagayan de Oro City, on October 27, 2017.

In the morning, free newborn screening was given to 22 babies, many of whom were delivered at home. The screening, together with advocacy lectures for parents, was done by the DOH-RO 10 NBS team, coordinators from the City Health Office of Cagayan de Oro, Barangay Health Stations, and the Northern Mindanao Medical Center.

In the afternoon, a Reunion of Saved Babies was held, where Dr. Conchita G. Abarquez, NSC-M Unit Head, talked about updates on the metabolic disorders to help parents in the management of their babies' disorders. RAguilar





Salt-wasting Simple virilizing

Late onset

in the first two to four weeks of life, characterized as poor feeding. vomiting, loose stools or diarrhea, weak cry, failure to thrive, dehydration, and lethargy. If untreated, the affected newborn will die in a severe salt-losing crisis with hypoglycemia and hypotension. The baby who survives may have brain damage.

decreased cortisol and aldosterone production, which in turn causes increased adrenocorticotropic hormone (ACTH) secretion. High ACTH levels result in hyperplasia of the adrenal cortex. The precursor steroids behind the block are diverted to the androgen biosynthetic pathway, resulting in excess production of androgens that cause virilization in females and precocious puberty in males. The decrease in the production of aldosterone in CAH results in For Region IVA Daniel O. Mercado Medical Center 3rd Flr. DMMC-HIS Bldg., 143 Narra St., Mountview Subd., Tanauan City Telephone: (043) 702-7715, 702-7719 Email: nsc.southernluzon@gmail.com

NSC-SL Marks Its 4th Year

With over half a million babies screened for heritable congenital disorders, NSC–Southern Luzon (NSC-SL) marks its fourth anniversary on September 24, 2017.

NSC-SL was one of the six NSCs created through the Newborn Screening Act of 2004. Located in Tanauan City, Batangas, and hosted at Daniel O. Mercado Medical Center, NSC-SL caters to the newborns of Region 4A, or the CALABARZON Region. Since its establishment in 2013, the center has upheld its mandate of saving babies from mental retardation and death through newborn screening.

Today, the center has expanded tremendously, with 725 active NSFs distributed throughout the region. Twentythree percent of the NSFs offers ENBS, and the number is continuously increasing. Through a strengthened partnership with different institutions such as DOH-RO 4A, local government units, various medical specialists, and health institutions, the center is continuously gearing toward a successful NBS program implementation.

The center has also extended its advocacy by organizing various activities such as CH-CAH Forum, G6PD Forum with Free Confirmatory Tests, NBS Caravans, Reunion of Saved Babies, and Buntis Congress. These activities aim to strengthen information dissemination as well as to give chance to saved babies and their parents to build a network of support. Continuous trainings for the NSFs were also put

What is Congenital Adrenal Hyperplasia (CAH)? Congenital

deficiency, 17β-hydroxylase deficiency, and 3β-hydroxysteroid

dehydrogenase. All forms of CAH are inherited in an autosomal

recessive pattern. The Philippine NBS data as of December 2013

Pathophysiology. 21-hydroxylase deficiency results in

reports that 1 out of 13,350 screened newborns has CAH.

salt and water imbalance.



urrent NSC-SL staff together with the local and international newborn creening accreditors during the renewal of the laboratory's accreditation

in place to equip personnel with the necessary skills and knowledge required for proper implementation.

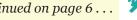
In its fourth year, NSC-SL also marks another milestone: gearing towards ENBS. The center aims to offer ENBS in the near future, thereby expanding the services it offers and helping a lot more newborns.

Through strengthened quality assurance, comprehensive trainings, effective information dissemination, and meaningful partnerships, NSC-SL strives to overcome the barriers for NBS Program implementation and ultimately achieve its vision to be recognized as a premier institution providing quality newborn screening services in Southern Luzon. FDimaculangan

IN THE KNOW: CONGENITAL ADRENAL HYPERPLASIA

Neonates with the salt-wasting (SW) form manifest adrenal crisis Affected females usually present with ambiguous genitalia.

Diagnosis. Newborn screening for 21-hydroxylase deficiency is done by measuring the 17-OHP level on dried blood spot. Infants with normal birth weight and a mild elevation of 17-OHP undergo repeat dried blood spot collection. Infants with moderate to severe elevation of 17-OHP and those who have birth weight with mild elevation are referred to a pediatric





Because you'll do everything to keep them safe

ASK YOUR HEALTHCARE PROVIDER ABOUT EXPANDED NEWBORN SCREENING





(IN THE KNOW... from page 5

endocrinologist for evaluation. Plasma 17-OHP. Na. K. cortisol. and RBS are requested to confirm the condition. In cases of discrepancies between the plasma 17-OHP and clinical parameters, more extensive diagnostic evaluation is recommended: ACTH stimulation test and/or DNA mutation studies.

Treatment and Monitoring.

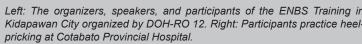
The mainstay of treatment in CAH is glucocorticoid and mineralocorticoid replacement therapy, which corrects the cortisol deficiency and reverses the abnormal hormonal patterns. Patients with deficiencies of mineralocorticoids the appropriate replacement hormones. Glucocorticoid replacement must be increased during periods of stress. The majority of female patients with prenatal virilization requires surgical repair. Heterozygous carrier detection, prenatal diagnosis, and prenatal therapy are available for families with 21-hydroxylase deficiency and are often used in 11β-hvdroxvlase deficiency. Regular endocrine clinic visits for monitoring of physical growth and development as well as biochemical 17-OHP and/or cortisol measurements are recommended for optimal management. Genetic counseling is recommended.

Prognosis. Newborn screening makes early diagnosis and early treatment possible. Early treatment to prevent adrenal crisis is lifesaving in cases of saltwasting CAH. Early diagnosis prevents inappropriate sex assignment for affected females of the simple virilizing (SV) form. This is very important due to the psychological and legal implications of wrong gender assignment. Progressive effects of excess androgens such as short stature and psychosexual disturbance in male and female patients are also prevented if appropriate treatment is given and monitored closely.

> Source: Fact Sheets for Doctors (May 2016) available at www. newbornscreening.ph.

DOH-RO 12 Intensifies ENBS Implementation





To arm NBS implementers in Region 12 with new knowledge and skills on ENBS. DOH-RO 12 held a two-day ENBS Training at Eva's Hotel, Kidapawan City, North Cotabato, on September 5-6, 2017.

The training was attended by 27 NBS health personnel from private and government hospitals in North Cotabato, Cotabato City, South Cotabato, General Santos City, Sultan Kudarat, and Sarangani.

A comprehensive discussion on the panel of disorders, program updates and administrative mechanics of NSC-M. types of NBS samples, and highlights of Republic Act 9288 was given on the first day of training. The topics were presented by Dr. Conchita Abarquez, NSC-M Unit Head; Perly Bermudez, Project Development Officer; and Mary Agnes Panton, NBS Program Manager of DOH-RO 12. Also present in the event was Dr. Nikki Regine D. Pader, Family Health Division Head. On the second day, participants underwent a workshop on the proper way of filling up NBS cards and had practicum in heelpricking. PBermudez



ENBS Training in Zamboanga City

The DOH-RO 9 conducted a two-day ENBS Training for untrained health personnel from the different facilities in Zamboanga Peninsula at the Grand Astoria Hotel, Zamboanga City, on October 18-19. 2017.

A total of 34 participants composed of doctors, nurses, midwives, and medical technicians attended the activity, where they listened to lectures on the disorders covered by ENBS and on the proper way of filling up ENBS cards. The participants also had hands-on sample collection training at Zamboanga City Medical Center. ITomas



Ma. Elouisa L. Reves

Participants of the ENBS training in Zamboanga City

Comments and questions may be sent to:

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DOH-RO 9 Holds Reunion of Saved Babies



Parents and children join the officers and staff of DOH-RO 9 during the Reunion of Saved Babies.

Despite the bad weather, some 38 parents and their children attended the Reunion of Saved Babies organized by the DOH-RO 9 in coordination with NSC-M and the NBSCC Region 9 held at Grand Astoria Hotel on October 17, 2017.

During the activity, Dr. Conchita Abarquez, NSC-M Unit Head, discussed the different disorders covered under NBS while Dr. Ernesto Florendo, Head of the NBSCC, provided consultation to patients. Parents and children also enjoyed parlor games prepared by the organizers. ITomas

DOH-RO 11 Celebrates NBS 48 **Week in Digos City**

Offering free newborn screening has been an annual tradition of the DOH-RO 11 as a way to commemorate the NBS week in the region and to reach out to patients. In 2017, the NBS Team gave free screening to the patients of Digos City Health Office and Davao Del Sur Provincial Hospital on October 27.

A total of nine babies from both facilities received the free screening. Louie Gelacio, nurse at the Southern Philippines Medical Center, and Amerah Matuan and Perly Bermudez of NSC-M led the sample collection. PBermudez



uie Gelacio (left) of Southern Philippines Medical Center prepares the NBS filter card prior to sample collection.

Your Feedback Is Important to Us!

Thank you for reading our newsletters! We would love to hear your feedback. Please let us know how we can improve our bimonthly newsletters by answering our feedback form at www.newbornscreening.ph. If you would like to write an article, please contact us at info@newbornscreening.ph. We will do our best to keep you informed about current and relevant newborn screening issues.



Newborn Screening Reference Center National Institutes of Health University of the Philippines Manila Unit 304 New Gold Bond Building

nore than 2,000 delegates from all over Dr. Catherine Lynn Silao, genetic counselor Pasay City, on October 3-4, 2017

Caridad Santos, pediatric hematologist Dr.

Reynaldo de Castro, Jr., molecular geneticist

screening in the country.

Lineuical Center

2nd Visavas NBS Awards Cite Best NSFs • Visavas Regions Kicks Off First Simultaneous Fun Run

Back Its NBS Awards

NSC-NL Responds to NBS

Challenges • Cagavan Valley Bring

DOH-RO 12 Observes NBS Week in Cotabato City • DOH-RO 10 Holds ENBS Orientation Series • Cagayan de Oro City Celebrates NBS identifying gaps and giving strategies toward was also in attendance. 100 percent implementation of newborn

NSSPI President Dr. Neal Orteza (leftmost). DOH Assistant Secretary

Dr. Eric Tayag (center), UPM Chancellor Dr. Carmencita Padilla

(second from right), and UPM Vice Chancellor for Research Dr. Eva

Maria Cutiongco-Dela Paz (rightmost) award the representative

from the newborn screening pioneering hospitals.

WHAT'S INSIDE

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the country attended the 14th National Dr. Ma-Am Joy Tumulak, neonatologist Dr. Newborn Screening Convention held at the J Edgar Winston Posecion, developmental Philippine International Convention Center, pediatrician Dr. Ma. Anna Lourdes Moral, Newborn Hearing Screening Reference Center Director Dr. Charlotte Chiong, and UP With the theme "Bridging the Gaps: Manila Chancellor Dr. Carmencita Padilla. From Screening to Management," the Representatives from the government convention gathered together 421 medical include Dr. Mary Antonette Remonte from doctors, 830 nurses, 441 midwives, 269 PhilHealth and Dr. Anthony Calibo from medical technologists, 5 chemists, and 65 Department of Health (DOH)-Family Health other professionals. Sixteen distinguished Office. International guest speaker Dr. speakers also shared their expertise in Carolyn Hoppe from Oakland, California,

Bimonthly Publication of the Newborn Screening Reference Center

Topics discussed include overview of general gaps of the newborn screening Genetic and newborn experts who graced program, gaps in the diagnosis and the convention include former Newborn management of Maple Syrup Urine Screening Reference Center (NSRC) Disease and Galactosemia, timeliness in Director Dr. Maria Melanie Liberty Alcausin, newborn screening, strategic directions clinical geneticists Dr. Mary Ann Abacan for the next decade from the PhilHealth and Dr. Conchita Abarquez, pediatric and DOH perspectives, transitioning to endocrinologists Dr. Sylvia Estrada and Dr. full implementation of the expanded NBS,

Continued on page 2...

Number of Babies Screened as of October 2017

10,357,379