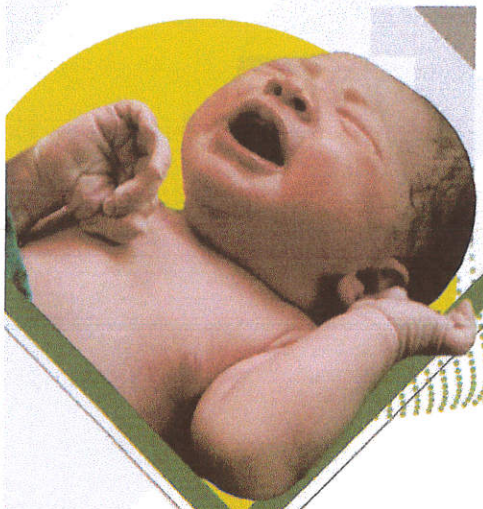
3rd SWON

PROCEEDING BOOK



UPDATE NEONATAL SYMPOSIUM 2019

QUALITY IMPROVEMENT OF NEONATAL CARE :

WHAT HAVE WE LEARNT?

SURABAYA
OCTOBER 17TH-20TH, 2019

SAGA

Neonantal Update Symposium 2019

Quality Improvement of Neonatal Care:

What Have We Learnt?

Quality Improvement of Neonatal Care

ISBN : 978-602-5758-83-6

Penulis:
Dr. Agus Sulistiyono, dr., SpOG(K)
Dr. Toto Wisnu Hendarto, dr., SpA(K), DTM&H
Setya Wandita, dr., M.Kes, Sp.A(K)
Prof. Cheah Fook Choe, MD, PhD
Dina Angelika, dr., SpA(K)
Setyadewi Lusyati, dr., SpA(K), Ph.D
Mahendra Tri Arif Sampurna, dr., SpA
Agus Harianto, dr., SpA(K)
Rozalina Loebis, dr SpM(K)
Dr. Rinawati Rohsiswatmo, dr., SpA(K)
Dr. Martono Tri Utomo, dr., SpA(K)
Prof. Cheah Fook Choe, MD, PhD
Dr. Risa Etika, dr., SpA(K)
Dr. Nyilo Purnami, dr., Sp.T.H.T.K.L (K), FICS, FISCM
Muhammad Reza, dr., SpA., M. Biomed

Editor:
Alvin Saputra, dr.

Cetakan 1: Oktober 2019

Kata Pengantar

Angka Kematian Bayi (AKB) di Indonesia masih tergolong tinggi bila dibandingkan dengan negara ASEAN yang lain. Data SKDI menunjukkan bahwa AKB Indonesia adalah 34 dari 1000 kelahiran hidup. Target MDGs 2015 adalah 23 dari 1000 kelahiran hidup. Penyebab Kematian terbesar neonatus adalah BBLR 29%, asfiksia 27%, infeksi 9%. Kematian tersebut sangat terkait dengan hukum 2/3 WHO, yaitu kematian bayi umur satu tahun 2/3 nya adalah berasal dari masa neonatologi (1 bulan pertama), dan kematian masa neonatologi 2/3 disumbang oleh masa perinatologi (7 hari pertama), dan masa perinatologi 2/3 kematiannya disumbang oleh kematian 24 jam pertama kehidupan. Hal tersebut sangat terkait dengan *The First Golden Hours Resuscitation* yang akan menentukan keluaran neonatus tersebut. Kerjasama tim dalam proses tatalaksana neonatus sangat besar perannya dalam mendukung keberhasilan neonatus. Kerjasama yang baik antara dokter spesialis kebidanan dan kandungan, dokter spesialis anak, dokter umum, bidan dan perawat dalam menurunkan kematian ibu dan bayi menjadi modal dalam percepatan pencapaian SDGs.

Puji syukur kami panjatkan kepada Tuhan Yang Maha Esa atas rahmat dan karunia-Nya sehingga buku 3rd SWUN (Symposium and Workshop Update Neonatal) 2019 ini dapat terbit. Buku ini merupakan hasil pemikiran para Staf Pengajar Divisi Neonatologi Departemen Ilmu Kesehatan Anak Fakultas Kedokteran Universitas Airlangga / RSUD Dr. Soetomo bersama teman sejawat lain, yang dengan adanya diharapkan menjadi tuntunan dalam mendalami ilmu neonatologi di fasilitas kesehatan primer, sekunder maupun tersier.

Terima kasih kepada para guru dan penulis yang telah meluangkan waktu di tengah kegiatan profesinya untuk menuangkan buah pikiran ke dalam karya ini. Tidak lupa kepada civitas akademika serta seluruh pihak terkait yang tiada henti memberikan kesempatan dan dukungan bagi panitia untuk melaksanakan seminar dan *workshop* 3rd SWUN 2019 serta melahirkan karya ini.

Tak lupa kepada segenap pembaca, semoga ilmu yang kita serap bersama-sama melalui karya ini dapat menjadi bekal pengabdian kelak di tempat masing-masing.

Surabaya, 17 Oktober 2019
Editor dan Tim Penulis

Daftar Isi

14

PRENATAL, PERINATAL AND POSTNATAL FACTORS ASSOCIATED WITH CONGENITAL DEAFNESS IN DR. SOETOMO GENERAL HOSPITAL SURABAYA INDONESIA

Dr. Nyilo Purnami, dr., Sp.T.H.T.K.L (K), FICS, FISCM
Department of Otorhinolaryngology Head and Neck Surgery
Fakultas Kedokteran Universitas Airlangga
RSUD Dr. Soetomo Surabaya

Abstract

Introduction: Congenital deafness is a profound sensorineural hearing loss that occurs when the fetus is still in the womb. Congenital deafness is a major problem that affects children's communication disorders. WHO estimates that every year there are 38,000 children born with deafness in Southeast Asia. The problem of congenital deafness is prevalent. The incidence increased related with the number of following high risk factors, including pre, perinatal and postnatal history. This study aimed to evaluate the factors in children with deafness in Dr. Soetomo hospital. The data were collected from the patients in the period 2011-2015 in Department of otorhinolaryngology Head & Neck Surgery. Dr. Soetomo Hospital. Surabaya. Indonesia This study was aimed to describe the prevalence and characteristics of deafness in children. **Methods:** The study was conducted retrospectively descriptively and data obtained from patient medical records during 2011-2015 at out patient Audiology clinic of Neurotology Division in Dr. Soetomo Hospital. **Results:** There were 1000 children with deafness, found during 2011 to 2015 with the highest age group were over 6 months. Most patients were girls in 509 children (50.9%). Adequate gestational age was 752 children (75.2%). The most normal childbirth was 790 children (79%). The highest birth weight was 2600-4500 gram, in 554 children (55.4%). The most prenatal history was normal, with 676 children (67.6%). The postnatal history was normal, with 581 children (58.1%). **Conclusions:** the deafness in children mostly related with normal factors on prenatal, perinatal and postnatal. This study indicated that unidentified risk factor may contribute to deafness in children

Key words : deafness, children, history, prenatal, perinatal, post natal

INTRODUCTION

Congenital deafness is a profound sensorineural hearing loss that occurs when the fetus is still in the womb. Children born with congenital deafness will experience speech delays. Congenital deafness is a major problem that affects children's communication disorders, therefore prevention needs to be done with newborn hearing screening, important screening is done, with routine newborn hearing screening then congenital hearing loss can be detected early. The limited facilities will make screening , diagnosis and rehabilitation are late, so special handling with verbal auditory therapy is required. [1,2,3,4]

Hearing loss is a common problem that is often found, this is a problem that is common in many countries, especially developing countries. WHO estimates that every year there are 38,000 children born with deafness in Southeast Asia, in developed countries the incidence of congenital deafness between 0.1 to 0 , 3% live birth, while in Indonesia in 1994 to 1996 equal to 0.1% live birth which is about 214,100 children. A total of 50% of hearing loss can be prevented through the activities of primary health center (puskesmas). Currently WHO has established Sound Hearing organization 2030, the purpose of this organization is to reduce the incidence of hearing loss by 50% in 2015 and 90% in 2030.[5, 6]
Speaking is an activity of motor communication including verbal expression, a person communicates by speaking out thoughts and expressing his feelings. Slow talk is a communication disorder that can interfere the development education and social life of a person, children born with hearing loss will risk experiencing barriers in communicating, reading and writing. [7,8,9]

Problem of congenital deafness is prevalent, then to find out how is the problem at Dr. Soetomo general hospital. Patient data collection was performed on 2011 to 2015, described with the distribution of age, sex, birth weight, birth history, prenatal, perinatal and postnatal history.

METHODS

The study was conducted descriptive retrospectively in the outpatient Audiology Clinic, Department of Ear Nose and Throat,

Head and Neck Surgery Dr. Soetomo Surabaya, Indonesia. Data were obtained from the patient's medical record during the five-year period between 2011 to 2015. Sample of this study were all children with assessment of profound sensorineural hearing loss or deaf. Patients were referral from general practitioner and multidisciplinary specialist. Data presented including age, sex, prenatal history, perinatal history (childbirth history, Age gestational) and postnatal history.

RESULT

Data were collect from medical records, the children with assessment of congenital deafness during period of 2011-2015.

Table 1.1 The distribution of age in children 2011-2015

Age	Year					Total children
	2011	2012	2013	2014	2015	
0-1 month	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
2-3 month	0 (0%)	1 (0.4%)	0 (0%)	0 (0%)	0 (0%)	1 (0.4%)
4-6 month	1 (0.4%)	2 (0.8%)	2 (0.7%)	0 (0%)	0 (0%)	5 (0.5%)
> 6 month	212 (99.5%)	222 (98.6%)	264 (99.2%)	133 (100%)	163 (100%)	994 (99.4%)
Total	213 (100%)	225 (100%)	266 (100%)	133 (100%)	163 (100%)	1000 (100%)

Table 1.2 The distribution of gender in children 2011-2015

Gender	2011	2012	2013	2014	2015	Total
Boys	102(47.9%)	99(44%)	131(49.2%)	66(49.6%)	93(57%)	491 (49.1%)
Girl	111(52.1%)	126(56%)	135(50.8%)	67(50.4%)	70(43%)	509 (50.9%)
Total	213(100%)	225(100%)	266(100%)	133(100%)	163(100%)	1000 (100%)

Table 1 described the distribution data of age and gender pediatric patients with congenital deafness during 2011 until 2013, Most patients during 2011 were age group> 6 months as many as 212 patients.The total number of patients in 2011 was 213 patients. In 2012, Most patients during 2012 are age group> 6 months as

many as 222 patients. The total number of patients in 2012 was 225 patients. Distribution data of Age pediatric patients in 2013 the majority of patients were> 6 months age group of 264 patients. The total number of patients in 2013 was 266 patients. Total patients in 2014 were 133 patients and all of patients were >6 month age group. Total patients in 2015 were 163 patients and all of patients were >6 month age group.

Distribution of congenital deafness based on gender in 2011 was found that the ratio of Boy and girl was 102 (47.9%) and 111 (52.1%). Distribution of congenital deafness by gender in 2012 was found that the ratio of Boy and girl was 99 (44%) and 126 (56%). The distribution of congenital deafness based on gender in 2013 found that the ratio of Boy and girl was 131 (49.2%) compared to 135 (50.8%). In 2014 found that total patients were boy was 66 (49,6%) and girls was 67 (50,4%) and distribution of congenital deafness based on gender in 2013 found that the ratio of Boy was 93 (57%) and girl was 70 (43%)

Tables 2, showed ditribution of prenatal history with congenital deafness in 2011-2015.

Distribution based on the 2011 prenatal history of 213 children found that 140 children (65.7%) had a normal prenatal history, 18 children (8.5%) had a history of rubella indicated from lab results and anamnesa, 9 children (4.2%) with a history of mother having fever during pregnancy, 6 children (2.8%) had a history of congenital heart disease, 5 children (2.4%) with a history of prenatal hypertension, rubeola and bleeding. Four children (1.9%) were born to mothers who had congenital cataracts and consumed herbs or medicines and 10 children (4,7%) with other prenatal histories. There are 3 children (1.4%) had a history of prenatal cytomegalovirus, 1 child (0.5%) had a history of prenatal varicella / smallpox, labiopalatosisis, down syndrome, diabetes mellitus, epilepsy, urinary tract infection, tuberculosis, and cough cold. 2 children (0,9%) with history Itchy, toxoplasma and also 2 children had no data on their prenatal history.

Table 2. Distribution of Prenatal history in 2011-2015

Prenatal History	2011	2012	2013	2014	2015	Total
Normal	140 (65.4%)	138 (61.3%)	174 (65.4%)	101 (75.9%)	123 (76.5%)	676 (67.6%)
Rubella	18 (8.5%)	13 (5.8%)	10 (3.8%)	6 (4.9%)	1 (0.6%)	48 (4.8%)
Fever	9 (4.2%)	6 (2.7%)	5 (1.9%)	4 (3%)	7 (4.3%)	31 (3.1%)
Herb & Medicine	4 (1.9%)	10 (4.6%)	17 (6.4%)	0 (0%)	0 (0%)	31 (3.1%)
Hypertension	5 (2.4%)	5 (2.2%)	7 (2.6%)	5 (3.8%)	3 (1.8%)	25 (2.5%)
Rubeola	5 (2.4%)	6 (2.7%)	4 (1.5%)	1 (0.7%)	1 (0.6%)	17 (1.7%)
Bleeding	5 (2.4%)	6 (2.7%)	3 (1.1%)	2 (1.5%)	1 (0.6%)	17 (1.7%)
Cataract	4 (1.9%)	9 (4%)	2 (0.8%)	0 (0%)	0 (0%)	15 (1.5%)
Itchy	2 (0.9%)	0 (0%)	0 (0%)	4 (3%)	6 (3.9%)	12 (1.2%)
Congenital heart disease	6 (2.8%)	3 (1.3%)	0 (0%)	1 (0.7%)	0 (0%)	10 (1%)
etc	13 (6.1%)	16 (7.1%)	14 (5.2%)	7 (5.2%)	17 (10.4%)	65 (6.5%)
No data	2 (0.9%)	13 (5.8%)	29 (1.9%)	2 (1.4%)	4 (2.5%)	50 (5%)
Total	213 (100%)	225 (100%)	266 (100%)	133 (100%)	163 (100%)	1000 (100%)

Distribution based on prenatal history in 2012 was obtained prenatal history of 225 children got 138 child (61,3%) had normal prenatal history, 13 children (5,8%) had history of ruble showed from lab result and anamnesa. Data show 10 children (4.4%) with a history of mothers having consumed herbs while pregnant, 9 children (4%) had a history of congenital cataract, 6 children (2.7%) with a prenatal history of rubeola, fever and hemorrhage. Five children (2.2%) were born to mothers with hypertension, 3 children (1.3%) with a history of congenital heart disease and 16 children (7,1%) with other prenatal histories. There are 4 children (1.8%) had a history of prenatal hyperemesis, , 2 children (0.9%) with varicella, 1 child (0.4%) had a history of prenatal trauma, toxoplasma, cytomegalovirus, cyst, diabetes mellitus, depression, exposure to lead, abortion, vaginal discharge and ruptured

membranes. There were 13 children (5.8%) no data on prenatal history.

Distribution based on prenatal history in 2013 of 266 children found 174 children (65.4%) had a normal prenatal history, 17 children (6.4%) with a history of mothers consuming herbal medicine during pregnancy, 10 children (3.8%) with history rubles were shown from lab results and anamnesas, 7 children (2,6%) were born to mothers with hypertension, 5 children (1.9%) with a febrile prenatal history. Four children (1.5%) were born to mothers who had suffered rubeola. 3 children (1.1%) had a history of prenatal bleeding, 2 children (0.8%) with cataract, cytomegalovirus. There are 14 children (5,2%) with other prenatal histories. Four child (0.4%) had a history of trauma, 2 children (0,8%) with Varicella, Hydrochepalus and Malaria and 1 children (0,3%) had Herpes, Diarrhea and Hepatitis B history. There were 29 children (10.9%) no data on prenatal history.

Distribution based on prenatal history in 2014 of 133 children found 101 people (75,9%) had a normal prenatal history, 6 people (4,9%) with Rubella, 5 children (3,8%) with a Hypertension, 4 children (3%) with fever and itchy. Two children (1,5%) with prenatal bleeding history and 1 children (0,7%) were born to mothers who had suffered from congenital heart disease, Cytomegalovirus and rubeola. There are 6 children (4,5%) with other prenatal histories. There are 4 children (3%) had a history of mother prenatal emesis and 1 children (0,7%) with toxoplasma and diabetes melitus . There were 2 children (1,2%) no data on prenatal history.

Distribution based on prenatal history in 2015 of 163 children found 123 children (75,5%) had a normal prenatal history, 7 children (4,3%) with a history of mothers fever + vomitting, 6 children (3.9%) with history itchy, 3 children (1.8%) with mother who had hypertension history, 1 children (0,6%) had prenatal history with Cytomegalovirus, Rubella, Rubeola, bleeding and there are 16 children (9,9%) with other prenatal histories like two children (1.2%) were born to mothers who had suffered from redness and fever, 1 children (0,6%) were born to mothers who had suffered a from breast cancer, gastroenteritis, Asthma, Typhoid and

diarrhea. Three children (1,8%) with history of Cough and cold, consumption herb, hyperemesis gravidarum. There were 4 children (2,45%) no data on prenatal history.

Table 3 was shown the distribution of perinatal history of congenital deafness. Perinatal history in this study are history childbirth and Age gestational in 2011-2015.

Table 3.1 Distribution of Perinatal History in 2011-2015 on childbirth history

Childbirth History	2011	2012	2013	2014	2015	Total
Normal	169 (79.3%)	176 (78.2%)	206 (77.4%)	115 (86.5%)	124 (76.1%)	790 (79%)
Section cesarean	26 (12.2%)	36 (16%)	38 (14.3%)	10 (7.5%)	20 (12.3%)	130 (13%)
Vacuum extraction	3 (1.4%)	1 (0.4%)	0 (0%)	0 (0%)	0 (0%)	4 (0.4%)
Forceps extraction	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
No Data	15 (7%)	12 (5.3%)	22 (8.3%)	8 (6%)	19 (11.6%)	76 (7.6%)
Total	213 (100%)	225 (100%)	266 (100%)	133 (100%)	163 (100%)	1000 (100%)

Table 3.2. Distribution of Perinatal History in 2011-2015 on Gestational age

Gestational Age	2011	2012	2013	2014	2015	Total
Normal	162 (76%)	187 (83.1%)	205 (77.1%)	108 (81.2%)	90 (55.4%)	752 (75.2%)
Premature	40 (18.8%)	32 (14.2%)	34 (12.8%)	17 (12.8%)	21 (13%)	144 (14.4%)
Post date	6 (2.8%)	2 (0.9%)	4 (1.5%)	2 (1.5%)	7 (4.3%)	21 (2.1%)
No data	5 (2.4%)	4 (1.8%)	23 (8.6%)	6 (4.5%)	45 (27.3%)	83 (8.3%)
Total	213 (100%)	225 (100%)	266 (100%)	133 (100%)	163 (100%)	1000 (100%)

Table 3.3 Distribution of Perinatal History in 2011-2015 on birth weight

Birth Weight	2011	2012	2013	2014	2015	Total
≤1500	3 (1.4%)	6 (2.6%)	8 (3%)	8 (6%)	4 (2.4%)	29 (2.9

						%)
1600-2500	57 (26,76%)	66 (29,3%)	68 (25,5%)	40 (30%)	48 (29,4%)	279 (27,9 %)
2600-4500	121 (56,8%)	126(56%)	144 (54,1%)	70 (52,6%)	93 (57%)	554 (55,4 %)
>4500	2 (0.9%)	0 (0%)	0 (0%)	0 (0%)	1 (0.6%)	3 (0.3 %)
No Data	30 (14.1%)	27 (12%)	46 (17.2%)	15 (11.2%)	17 (10.4%)	135 (13.5 %)
Total	213 (100%)	225 (100%)	266 (100%)	133 (100%)	163 (100%)	1000 (100 %)

1) Distribution of child birth

Distribution based on the history of childbirth in 2011, 169 children (79.3%) were born with normal or spontaneous childbirth, secsio caesar through 26 children (12.2%), three children (1.4%) extraction vacuum, and no birth (0%) were assisted forcep extraction during the year 2011. A total of 15 children (7%) had no known birth history. Distribution based on the history of childbirth in 2012 was 176 (78.2%) of children born with normal or spontaneous childbirth, cesarean delivery by 36 (16%) children, vaccum of one child (0.4%), and no births (0%) aided forcep during 2011. A total of 12 children (5.3%) were unknown for their delivery. Distribution based on the history of childbirth in 2013 was 206 children (100%) were born with normal or spontaneous childbirth, cesarean delivery through 38 children (14.3%), no vacuum and forcep assisted childbirth. A total of 22 children (8.3%) were unknown for their delivery. Distribution based on the history of childbirth in 2014 was 115 children (86,5%) were born with normal or spontaneous childbirth, cesarean delivery through 10 children (7,5%), no vacuum and forcep assisted childbirth. A total of 8 children (6%) were unknown for their delivery. Distribution based on the history of childbirth in 2015 was 124 children (76,1%) were born with normal or spontaneous childbirth, cesarean delivery through 20 children (12.3%), no vacuum and forcep assisted

childbirth. A total of 19 children (11,6%) were unknown for their delivery.

2) Distribution of Gestational age

Table 3 shows the distribution based on gestational age in 2011 as many as 162 (76%) of children were born with enough month, 40 children (18.8%) were born premature, six (2.8%) were born postdate and the remaining five (2.4%) is unknown or there is no data about the age of pregnancy. Distribution based on gestational age in 2012 indicates that 187 children (83.1%) were born with enough month, 32 children (14.2%) were born premature, as many as two children (0.9%) were born postdate and the rest of four children (1.8%) were unknown or there was no data about their pregnancy. Distribution based on the history of gestational age in 2013 were 205 children (77.1%) were born with enough month, 34 children (12.8%) were born premature, as many as four children (1.5%) were born postdate and the rest as many as 23 children (8.6%) are unknown or no data about the age of pregnancy. Distribution based on the history of gestational age in 2014 were 108 children (81,2%) were born with enough mounth, 17 children (12.8%) were born premature, as many as two children (1.5%) were born postdate and 6 children (4,5%) are unknown or no data about the age of pregnancy. Distribution based on the history of gestational age in 2015 were 90 children (55,4%) were born with enough month, 21 children (13%) were born premature, as many as seven children (4,3%) were born postdate and 45 children (27,3%) are unknown or no data about the age of pregnancy.

3) Distribution of birth weight

Distribution by birth weight was in 2011, out of a total of 213 patients there were 3 children (1.4%) born with birth weight ≤1500 grams, 57 children (26.7%) born with birth weight between 1600 to 2500 grams, there were 121 children (56.8%) born with birth weight between 2600 to 4500 gram. There were 37 children (17.4%) with birth weight 3100 to 3500 gram, 15 children (7.1%) with birth weight between 1600 to 2000 gram, 12 children with

birth weight 3600 to 4000 gram. Data showed 2 children (0.9%) with birth weight> 4500 gram. During 2011 there were 30 patients (14.1%) with no known birth weight history.

The birth weight -based distribution of 2012 out of a total of 225 patients were 66 children (29.3%) born with birth weight between 1600 to 2500 grams, there were 126 children (56%) born with birth weight between 2600 to 4500 grams. The data showed 6 children (2.7%) with birth weight ≤ 1500 grams. During 2012 there were 27 patients (12%) with no known birth weight history. By weight birth distribution was born in 2013 out of a total of 266 patients there were 68 children (25.5%) born with birth weight between 1600 to 2500 gram, there were 144 (54.1%) children with birth weight 2600 to 4500 gram. The data showed that 8 children (3%) born with birth weight ≤ 1500 gram and no child with birth weight more than 4500 gram. During 2013 there were 46 patients (17.3%) with no known birth weight history.

By weight birth distribution was born in 2014 out of a total of 133 patients there were 40 children (30%) born with birth weight between 1600 to 2500 gram, there were 70 children (52.6%) with birth weight 2600 to 4500 gram. The data showed that 8 children (6%) with birth weight ≤ 1500 gram, and no children with birth weight ≤ 4500 gram. During 2014 there were 15 patients (11.2%) with no known birth weight history. By weight birth distribution was born in 2015 out of a total of 163 patients there were 48 (29.4%) children born with birth weight between 1600 to 2500 gram, there were 93 children (57%) with birth weight 2600 to 4500 gram. The data showed that 4 children (2.4%) with birth weight ≤ 1500 gram and 1 children (0,6%) with birth weight >4500 gram. During 2015 there were 17 patients (10,4%) with no known birth weight history.

Tables 4 showed postnatal history distribution data in children with deafness in 2011-2015

Distribution based on post-natal history of 2011 was 213 children. A total of 137 children (64.3%) had a normal postnatal history, 28 children (13.2%) with a history of febrile seizures, 13 (6.1%) suffered from fever, and 10 children (4.7%) had diarrhea, 6 children (2.8%) had a history of post-natal tuberculosis. Four

children (1.8%) had cough and meningitis, 3 children (1.4%) had a history of post-natal jaundice. There are 8 children (3,7%) with other postnatal histories, 2 children (0.9%) had been dehydrated. A total of 1 child (0.5%) had a history of allergic postnatal, malnutrition, asthma, malaria, epilepsy and varicella.

Table 4. Distribution of Postnatal History in 2011-2015

Postnatal History	2011	2012	2013	2014	2015	Total
Normal	137 (64.3%)	151 (67.1%)	153 (57.4%)	66 (49.6%)	74 (45.5%)	581 (58.1%)
Febrile convulsion	28 (13.2%)	36 (16%)	36 (15%)	25 (18.8%)	34 (20.9%)	159 (15.9%)
Fever	13 (6.1%)	14 (6.2%)	24 (9.02%)	14 (10.5%)	10 (6.1%)	75 (7.5%)
Diarrhea	10 (4.7%)	5 (2.6%)	16 (6.02%)	7 (5.26%)	7 (4.3%)	45 (4.5%)
Icterus	3 (1.41%)	5 (2.2%)	16 (6.01%)	4 (3.05%)	0 (0%)	28 (2.8%)
Tuberculosis	6 (2.8%)	1 (0.4%)	7 (3.9%)	1 (0.75%)	3 (1.8%)	18 (1.8%)
Meningitis	4 (1.8%)	4 (1.7%)	3 (1.12%)	0 (0%)	1 (0.6%)	12 (1.2%)
Cough and Cold	4 (1.8%)	0 (0%)	0 (0%)	0 (0%)	2 (1.2%)	6 (0.6%)
Congenital Heart Disease	0 (0%)	0 (0%)	0 (0%)	3 (2.2%)	7 (4.2%)	10 (1%)
Rubella	0 (0%)	0 (0%)	0 (0%)	1 (0.75%)	7 (4.3%)	8 (0.8%)
Etc	8 (3,7%)	9 (4%)	4 (1,5%)	12 (9.02%)	17 (10.4%)	50 (5%)
No Data	0 (0%)	0 (0%)	7 (2.6%)	0 (0%)	1 (0.6%)	8 (0.8%)
Total	213 (100%)	225 (100%)	266 (100%)	133 (100%)	163 (100%)	1000 (100%)

Distribution based on the post-natal history of 2012 of 225 children was found 151 children (67.1%) had a normal postnatal history, 36 children (16%) with a history of febrile seizures, 14 children (6.2%) with a history of postnatal fever, as many as 5 children (2.2%) suffered from diarrhea and jaundice, 4 children (1.8%) had ever had meningitis. There are 9 children (4%) with other postnatal histories, Two children (0.9%) had varicella and

bronchitis, 1 child (0.4%) had a history of postnatal malnutrition, palatal surgery, bleeding, asthma, malaria and tuberculosis.

Distribution based on post-natal history in 2013 of 266 children found 153 children (57.5%) had a normal postnatal history, 36 children (13.5%) with a history of febrile seizures, 24 children (9%) with a history of postnatal fever, as many as 16 children (6%) had diarrhea and jaundice, 7 children (2.6%) had tuberculosis. There are 3 children (1.1%) had ever had meningitis. There are 4 children (1.05%) with other postnatal histories as many as 1 child (0.4%) had a history of allergies, trauma, surgery and varicella. There were 7 children (2.6%) no data about the history of postnatal.

Distribution based on post-natal history in 2014 of 133 children found 66 children (49.2%) had a normal postnatal history, 25 children (18.8%) with a history of febrile convulsion, 14 children (11.5%) with a history of postnatal fever, as many as 7 children (5.3%) had diarrhea, 4 children (3%) had meningitis. As many as 2 child (1,2%) with cataract congenital, 1 child (0.7%) which each other had a history post natal of tuberculosa, dehidration, alergy malnutrion, CMV, tranfussion, Transfusion, Smallpox, Mikrotia, Sigfialis abscess, Rubella, Hydrocephalus, Sore throat and Lung Infection.

Distribution based on post-natal history in 2015 of 163 children found 74 children (45,5%) had a normal postnatal history, 34 children (21%) with a history of febrile convulsion, 10 children (6,1%) with a history of postnatal fever, as many as 7 children (6%) which each other had diarrhea, congenita heart dissease and rubella, As many as 3 children (1.8%) had ever had tuberculosa, 2 children (1.2%) with cough and cold history. There are 17 children (10.4%) with other postnatal histories, 2 children (1,2%) which each other had cataract congenital, MT perforatio, mortily and ottorhea. 1 child (0.6%) which each other had a history of alergy malnutrion, meningitis, epilepsy, emesis, Lung Inflammation and digestive Infection. There were 1 children (0.6%) no data about the history of postnatal.

DISCUSSION

The total number of congenital deafness patients for five years found more girls than boy, 491 male and female as many as 509 children, this is inconsistent with the existing literature statement. In the literature it is explained that more speech delays are found in male sex than female, the incidence rate is 3 to 4 times greater for men than for women, but the reason for this is not yet explained in detail.[2,3]

Most age ranges are aged more than six months as many as 994 children, because the age range is usually the parents are aware of the delay in talking and worry about it. These conditions will lead parents to take their children to see a doctor, and not yet a routine screening protocol for newborns with a high risk of hearing loss, especially in primary health centers. Hearing loss is detected in newborns who are at risk for hearing loss by doing some tests. Many infants with hearing loss are not detected until they age, with routine newborn hearing screening procedures on a regular basis so that congenital hearing loss can be detected early. Earlier detection and intervention will result in better outcomes in children with hearing loss. Developed countries such as the United States have conducted universal hearing screening programs for all newborns and become routines for detecting infants with hearing loss.[2,7,9]

The collected data obtained the history of normal childbirthat most, the second was cesarean section, the third was with the help of vacuum extraction, no data underlying the choice of delivery method. The literature explains the history of prolonged childbirth and the trauma of childbirth may cause disorders of the child's brain due to hypoxia, the brain disorder itself will affect the development of speech.[10]The history of gestational age in the period of five years at most were children who were born enough months as many as 752 children, 144 children premature, 21 children were born with over months and the remaining 83 children there is no data birth history, the number of children born premature high from over months. Baby said to be premature when born with gestation less than 37 weeks, premature birth is a fetal response to poor environmental conditions include lack of nutrients and oxygenation. The literature describes premature birth as increasing

the risk of profound sensorineural hearing loss, due to immature organ and hearing nerve.[11]

Audiology data in 2011 about birth weight there are 60 children (28.2%) were born with low birth weight (less than 2500 g) . In 2012 as many as 72 children (32%) were born with low birth weight, and in 2013 as many as 76 children (28.6%), but in 2014 as many as 48 children were born with low birth weight, and in 2015 as many as 52 children from the data obtained the number of children born with low birth weight tend to increase from 2011 to 2013, but decreases from 2014 to 2015 in the literature mentioned that infants with low birth weight at risk of profound sensorineural hearing loss.[11]

The data obtained for five years found 704 children with profoundhearing loss, as many as 48 children based on laboratory results had a history of prenatal rubella and 15 children (2.1%) with a history of congenital cataract, from the literature described etiology hearing loss is due to hereditary disorders, acquired abnormalities and unknown cause. Ethology is the most common, one of which is congenital rubella. The congenital deformity is usually acquired during the fetus in the womb, due to the intra uterine disturbance that causes the hearing loss. Martin in the UK reports 36 cases of congenital deafness that have a prenatal history infected rubella during first trimester. Janin contained by rubella infected mother susceptible to congenital cataract later. Rubella infection is an intrauterine infection during early trimester pregnancy, infected fetus rubella susceptible organ malformations this can certainly lead to the emergence of congenital deaf when the fetus is born. Hopkins in 1949 reported 92 children with congenital deafness because of a history of prenatal rubella infections, and 10 infants with congenital cataracts from mothers suffering from rubella during the first two months of pregnancy, and 21 children born to rubella mothers in the first trimester of pregnancy two of whom suffered from cataracts and 13 of whom suffered from heart defects[1,5,13]

The maternal prenatal history of consuming herbs and medications from the data for five years obtained 31 children (4.4%). The literature explains that the drug otoksosic may cause

newborn deafness this is due to hearing nerve damage. [8] A total of eight children based on laboratory results have a history of prenatal cytomegalovirus, 4 children with a history of toxoplasma. The association between congenital cytomegalovirus with congenital deafness has been known for more than four decades, but the mechanism of this virus can cause hearing loss is not known for certain. Cytomegalovirus and toxoplasma are microorganisms that can penetrate the placenta, so if the mother has the disorder the fetus will be at risk of cytomegalovirus and toxoplasma in his body, some bibliography mentioned in children suffering from toxoplasma, rubella, varicella and cytomegalovirus susceptible congenital deafness.[14,15]

Five years of postnatal history data obtained 159 children had a history of febrile seizures, 12 children with a history of meningitis and as many as 24 children (3.4%) had a history of jaundice. In the literature it is explained that kern jaundice, otoksoksik drug and febrile seizures can also cause hearing loss, children who often experience febrile seizures are at risk of suffering brain nerve damage and may cause interference in communication later, in some countries 10% of children with febrile seizures due to bacterial meningitis got sensorineural permanent hearing loss.[11,12]

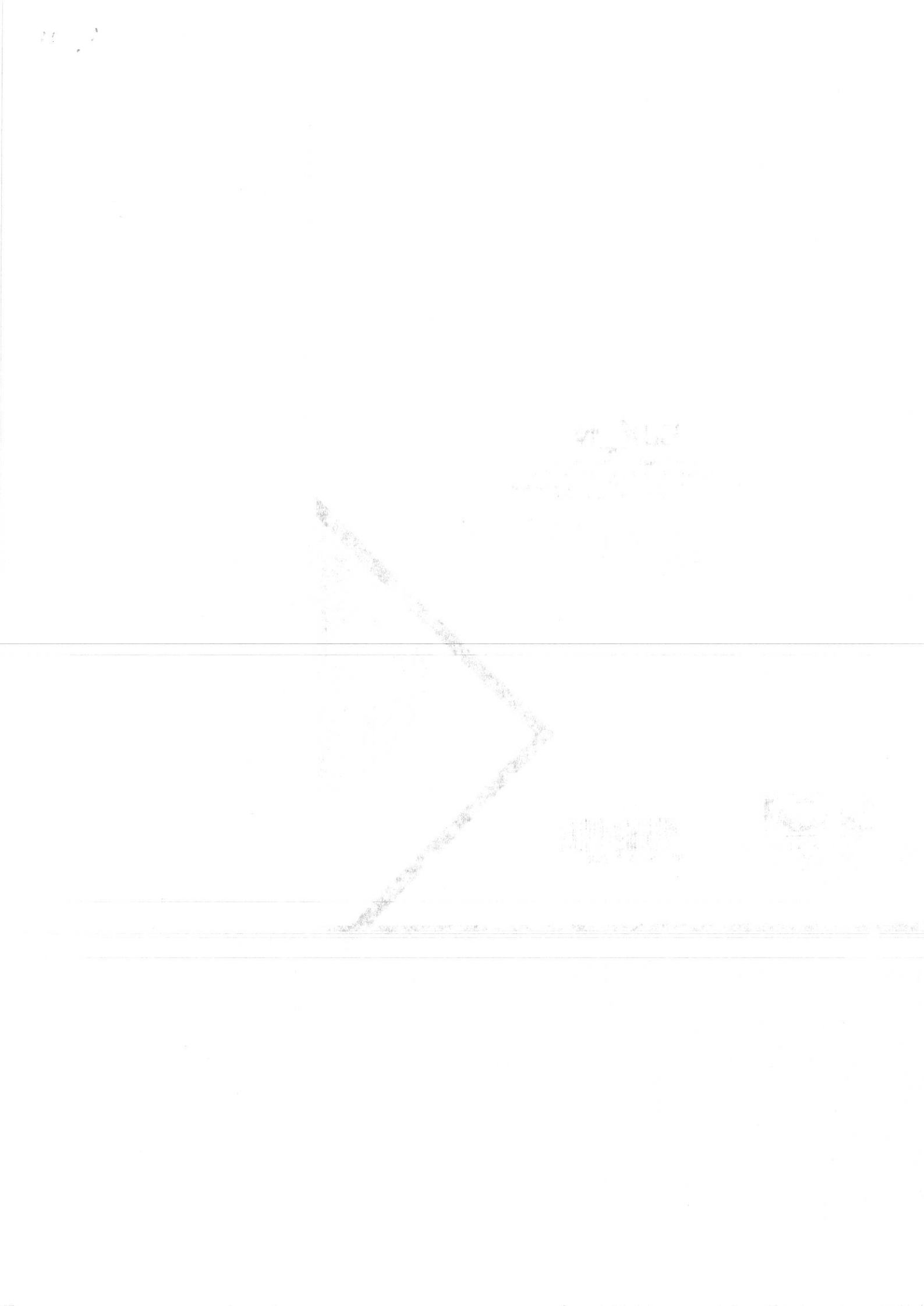
CONCLUSIONS

The highest prevalence of congenital deaf patients in the outpatient Audiology clinic at Dr. Soetomo were girls with age more than 6 months. The history of child birth, gestational age, prenatal and postnatal were normal. Adequate gestational age and birth weight between 2600-4500 gr. The data obtained several factors causing congenital deafness such as rubella, cytomegalovirus, toxoplasma, febrile seizures and others provide information as a precautionary basis to be done. Prevention is important, through implementation of universal newborn hearing screening for early detection of hearing impairment and deafness.

REFERENCES

1. Brackett D. Management options for children with hearing loss. In: Katz J, ed. Hand book of clinical audiology. 5th ed. Philadelphia: Lippincott, 2002: 758-66.
2. Ellis F. Genetics evaluation guidelines for the etiologic diagnosis of congenital hearing loss. J Genet Med 2002;4:162-71.
3. Gravel JS, O'Gara J. Communication option for children with hearing loss. J Mental retardation and Developmental Disabilities 2003;3:243-51.
4. Bola AY, Caleb A, OguniyiGM. Characteristics and etiology of hearing loss among the school for the deaf children in ife-ijesha senatorial district of osun state nigeria. J Community Med Health Educ 2013;3:1-4.
5. Djelantik B. Deafness and hearing impairment in SEA Region. Temu Konsultasi Perumusan Strategi Nasional Penanggulangan Gangguan Pendengaran dan Ketulian (PGPKT); Bogor, Indonesia: Juni 2003.
6. Leung AK, Kao CP. Evaluation and management of the child with speech delay. American Family Physician. June, 1999.
7. Berry MF, Eisenson. The normal development of speech. In: Berry MF, eds. Speech disorder principles and practices of therapy. New Jersey: Prentice hall Inc. 1996: 83-116.
8. Diefendorf AO. Detection and assessment of hearing loss in infant and children. In: Katz, J. ed. Handbook of clinical audiology. 5th ed. Philadelphia: Lippincott, 2002: 469-80.
9. Ray C. Mental retardation and developmental disabilities. In: Katz J, ed. Hand book of clinical audiology. 5th ed. Philadelphia: Lippincott, 2002: 557-66.
10. Marlow ES, Hunt LP, Marlow N. Sensorineural hearing loss and prematurity. J Arch Dis Child Fetal Neonatal 2000;82:141-4.
11. Karanja BW, Oburra HO, Masinde P. Risk factors for hearing loss in children following bacterial meningitis in a tertiary referral hospital. J Otolaringol 2013;70:1-9.

12. Shetty P. Speech and language delay in children: a review and the role of a pediatric dentist. J. Institute of Dental Sciences 2012;30:103-108.
13. Muhaimeed H.Hearing loss and herpes simplex. J Trop Pediat 2011; 35: 19-22.
14. Mishra B, Panda N, Singh MP. Viral infections in sudden hearing loss. J Kathmandu University Medical 2005;3: 230-3.
15. Yoong M, Seunarine K, Martinos M. Prolonged febrile seizures cause reversible reductions in whitematter integrity. J neuro image clin 2013;3: 515-21



CERTIFICATE
OF APPRECIATION

THIS CERTIFICATION IS PROUDLY PRESENTED TO :

Nyilo Purnami

PARTICIPANT

CPD IDAI No. 2318.A.2.6/CPD-I/Apl/2019 : Participant 11 SKP & No. 2319/E.1/CPD-V/Apl/2019 : Speaker 1 SKP
IDI No. 451/PKB/IDI-WJ/2019 : Speaker 8 SKP / Moderator 2 SKP / Committee 1 SKP / Participant 7 SKP
SKP DPW PPNI PROV. JATIM 0440/DPW.PPNI/SK/K.S/IX/2019 : Speaker 3 SKP / Moderator 2 SKP / Committee 2 SKP/ Participant 1 SKP
IBI No. 239/SKP/Sek.PDIBI/VIII/2019 : Facilitator 3 SKP / Participant 3 SKP

IN RECOGNITION OF HIS/HER VALUABLE PARTICIPATION IN THE SYMPOSIUM ENTITLED
QUALITY IMPROVEMENT OF NEONATAL CARE : WHAT HAVE WE LEARNT ?
ON OCTOBER 19th & 20th, 2019, AT FAIRFIELD HOTEL SURABAYA - INDONESIA

CHAIRMAN OF
INDONESIAN PEDIATRIC SOCIETY EAST JAVA BRANCH

Dr. Sjamsul Arief, MARS, SpA(K)
NPA. 03 00792 1986 11

CHAIRMAN OF 3RD SWUN 2019

Dr. Risa Etika, dr., SpA(K)
NPA. 03 01 195 199711

CERTIFICATE
OF APPRECIATION

THIS CERTIFICATION IS PROUDLY PRESENTED TO :

Nyilo Purnami

SPEAKER

CPD IDAI No. 2318.A.2.6/CPD-I/Apl/2019 : Participant 11 SKP & No. 2319/E.1/CPD-V/Apl/2019 : Speaker 1 SKP
IDI No. 451/PKB/IDI-WJ/2019 : Speaker 8 SKP / Moderator 2 SKP / Committee 1 SKP / Participant 7 SKP
SKP DPW PPNI PROV. JATIM 0440/DPW.PPNI/SK/K.S/IX/2019 : Speaker 3 SKP / Moderator 2 SKP / Committee 2 SKP/ Participant 1 SKP
IBI No. 239/SKP/Sek.PDIBI/VIII/2019 : Facilitator 3 SKP / Participant 3 SKP

IN RECOGNITION OF HIS/HER VALUABLE PARTICIPATION IN THE SYMPOSIUM ENTITLED
QUALITY IMPROVEMENT OF NEONATAL CARE : WHAT HAVE WE LEARNT ?
ON OCTOBER 19th & 20th, 2019, AT FAIRFIELD HOTEL SURABAYA - INDONESIA

CHAIRMAN OF
INDONESIAN PEDIATRIC SOCIETY EAST JAVA BRANCH

Dr. Sjamsul Arief, MARS, SpA(K)
NPA. 03 00792 1986 11

CHAIRMAN OF 3RD SWUN 2019

Dr. Risa Etika, dr., SpA(K)
NPA. 03 01 195 1997 11