ACKNOWLEDGMENTS

This report is based on the data collected during the year 2020 by 22 newborn units (NICU) from Latin America that belong to the neonatal network EpicLatino. We appreciate the invaluable support of the participating NICUs who contributed this information, and we acknowledge the dedication and work of the researchers, NICU directors, and the people who have entered the information into the database. Additionally, we appreciate the support given by Dr. Shoo Lee, former director of the Maternal-Infant Research Center at Mount Sinai Hospital, scientific director CIHR Institute of Human Development, Child and Youth Health, an Associate Member of the Lunenfeld-Tanenbaum Research Institute, and professor at the University of Toronto for his help, leadership and financial support through the CIHR grant, for the development of this project. Dr.Shoo Lee, has been named to the Order of Canada, the country's highest honor for his lifetime achievement. We thank also Amara Rivero for her important collaboration in the reception and organization of the database.

STRUCTURE OF THE NEONATAL EPICLATINO NETWORK

The EpicLatino neonatal network is a group of Latin American researchers and neonatologists who work on projects related to perinatal and neonatal care. It was founded in 2015 by Drs. Carlos Fajardo, Angela Hoyos, Carolina Villegas, Fernando Aguinaga, María Inés Martinini and Mariela Fernández. Thanks to the contacts with the Canadian neonatal network (CNN), data collection has been carried out under this network's program, translated into Spanish. Thanks to this system, the units that were already collecting information contributed their database of several years. This network maintains a standard database that allows researchers to participate in collaborative projects, both national and international. Health professionals, researchers and administrators can actively participate in different research projects related to clinical aspects, health services, health policies, etc. focused on improving the quality of care, efficacy, and effectiveness of neonatal care.

Acronym	Institutions	Above sea level (m)	Place	Investigators
CDC	Clínica del Country	2640	Bogotá, Colombia	Dr. Angela Hoyos
CMISL	Clínica Materno Infantil San Luis	959	Bucaramanga, Colombia	Dr Martha Lucía Africano, Nurse: Luz Marina Ramírez
CSB	Clínica Santa Bárbara	2850	Quito, Ecuador	Drs. Edgar Jara Muñóz Natalia Sánchez and Pamela Izquierdo
CS	Clínica Somer	2113	Rio Negro, Colombia	Dr. Edwin Antonio González, Nurse: Luz Beatriz Sáenz
HCMP	Hospital Central Dr. Ignacio Morones Prieto	1850	San Luis Potosí, México	Dr. Carolina Villegas
HCI	Hospital Civil de Ipiales E.S.E	2898	Ipiales, Colombia	Drs. Carlos Guillermo Burbano and María Del MarMontenegro Chalapud Nurse: Claudia Cabrera Lucero
HDLV	Hospital de los Valles	2850	Quito, Ecuador	Dr. Verónica Delgado
HSJ	Hospital San José	2640	Bogotá, Colombia	Dr. Diana Arias
HSVP	Hospital Departamental San Vicente de Paul	828	Garzón, Huila, Colombia	Drs. Nidia Patricia Barrera Herrera and Flor Ángela Galindo
HDFE	Hospital Dr. Florencio Escardó	2	Tigre, Argentina	Drs. Marco Antonio Belzu Rodriguez, Laura Martinez, Norma Melendez, Natalia Rebottaro, Walter Witlis and Victoria Ardariz
HEM	Hospital Español de Mendoza	746	Mendoza, Argentina	Drs. Horacio Roge, Damián Pretz, Daniel Agost, Martin Guida, Mariana Brusadin and Daniel Abdala
HGDC	Hospital General Docente de Calderón	2850	Quito, Ecuador	Drs. Elina Yánez Valencia, Katty Grova, Luis Poma Humberto Corral, Yolicar Rojas and Rocio Caicedo

Acronym	Institutions	Above sea level (m)	Place	Investigators
HGM	Hospital General EISS de Manta	6	Manta, Ecuador	Drs. Ibelice Rocío Zambrano, Yaslin Delgado, Mariela Macias, Danixa Rodriguez, Yraida Millan and Karla Zambrano.
HILP	Hospital Italiano de La Plata	10	La Plata, Argentina	Drs. Guillermo Agustin Zambosco, Maricel Uria and Gabriela La Posta
HMT	Hospital Metropolitano	2850	Quito, Ecuador	Drs. Fernando Aguinaga and Verónica Guzmán
HMC	Hospital Militar Central	2640	Bogotá, Colombia	Drs. Claudia Alarcón, Lina Maria Cabrales, Alejandro Colmenares y Carlos Rivera
HRPP	Hospital Nacional Ramiro Prialé	3259	Huancayo, Perú	Drs. Stevie Guisbert, Elescano, Daniel Lozano Moreno, Icela Paitán Santillan, Ronald Moya Capacyachi, Carlos Condor Untiveros and Carlos Torres Salinas
HRU	Hospital Regional Universitario de Colima	570	Colima, Mexico	Dr. Juana de la Luz Castellanos
HSFQ	Hospital San Francisco de Quito	2850	Quito, Ecuador	Dr. Magdalena Calero, Consuegra, Carlos Andrés Espinosa Rivas and Wilmer Orlando Sánchez Escalante
HCI	Hospital Civil de Ipiales E.S.E	2898	Ipiales, Colombia	Drs. Carlos Guillermo Burbano and María Del Mar Montenegro Chalapud Nurse: Claudia Cabrera Lucero
MNSM	Maternidad Nuestra Sra. de las Mercedes	396	Tucuman, Argentina	Drs. María Inés Martinini, Daniel Amado, María Jorgelina Neme, Marta Alvarez, Gloria Ferreyra and Maria Cristina Sanchez

Acronym	Institutions	Above sea level (m)	Place	Investigators
HDC	S.E.S. Hospital de Caldas	2150	Manizales, Colombia	Drs. Oscar Julián López Uribe, Diana Marcela López and Mariana Jaramillo Angel
SEHOS	St. Elisabeth Hospital	1	Willemstad, Curaçao	Dr. Naijla Duque

The hospitals which did not complete more than 10 patients ≤ 32 weeks gestational age at birth during the year, will not be included in the comparison section between units. Only the patients with all the information are included.

Description of the NICU participants

All participating units have intensive and intermediate care beds and all (except one) have basic care beds. All (except one) receive sometime referrals from other institutions. All participating institutions have a delivery room. Some units enter only or mainly premature <33 weeks and at least one other <2000 gr at birth.

Document written and prepared by Drs. Carlos Fajardo, Pablo Vasquez and Angela Hoyos

Acronyms used in the document

asl: above sea level
BPD: Bronchopulmonary Dysplasia
Birthweight: Weight at birth in grams
CONS: Staphylococcus coagulase negative
CPAP: Continuous Airway Pressure
Gestational Age: Gestational age at birth in weeks
GBS: Group B Streptococcus
Gr: grams
IQR: interquartile range
IVH: Intraventricular Hemorrhage
NEC: Necrotizing Enterocolitis
NICU: Neonatal Intensive care units
OTI: Oral Tracheal Intubation
PDA: Patent ductus arteriosus
PMA: Postmenstrual age
PPV: Positive Pressure ventilation
ROP: Retinopathy of Prematurity
Staph aureus: Staphylococcus aureus
TPN: parenteral nutrition
w: Weeks

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GENERAL SUMMARY

This report is based on data collected during 2020 by 22 newborn third-level care units (NICU) from Latin America and that belong to the EpicLatino neonatal network. For the analysis of the different variables, all the NICUs were included in the database. For comparison between units, only those with more than 10 patients ≤ 32 weeks at birth during the year, were included, so data calculated in se comparison section correspond to 15 NICUs. The goals of EpicLatino's neonatal network are:

- To stablish and maintain a data source for Latin American Newborn Units.
- To provide the infrastructure to facilitate knowledge on morbidity and mortality and care of newborns in Latin America.
- To facilitate the obtaining of reliable data that produces information and to translate into actions that allow the improvement of neonatal and perinatal health at the local and regional level.
- To stablish a Latin American network of researchers interested in neonatal and perinatal care.
- To develop innovative research methods that lead to the improvement of the quality of neonatal and perinatal health care and attention in Latin America.

Summary of Results / Methodology

EpicLatino neonatal network data source: admissions from January 1, 2020 to December 31, 2020.

The total number of eligible admissions from participating centers was 3603, deaths at the delivery room or moribund on admission were not included.

Total number of patients admitted to participating NICUs 3630.

Total number of eligible very premature infants (<33 weeks at birth) 682.

Total number of very low Birthweight infants (≤ 1500 gr at birth) 496.

The Gestational Age in this document refers to full weeks (example week 32 includes children from 32 weeks to 32 weeks and 6 days of gestation). Those children transferred to the normal newborn area (primary care level) were excluded, but those who died during their stay in the unit were included regardless of the time in the unit. The demographic information of the patients, without personal identification data, components of care and the end results upon leaving the hospital were entered into a computer and sent electronically to MiCare, where data was verified; Statistical analysis was performed at the coordinating center in Calgary and Bogotá.

BACKGROUND AND OBJECTIVES

NICUs use the combined capabilities of diverse health care members and advances in technology to provide effective care for newborns. To assist in this task, the EpicLatino neonatal network data source provides ordinal and categorical information to identify variations in issues such as mortality and morbidity and the use of available resources.

Three scores are used, namely: SNAP II, NTISS and TRIPS, which allow adjusting the risk variations in both mortality and morbidity. This adjustment will allow in subsequent analyzes to investigate what specific practices can be changed to improve the quality of care of our newborns.

Using the EPIQ (Evidence-Based Practice Quality Improvement) program allows exploring new methodologies to identify care practices associated with good or poor outcomes and provide a way to improve the quality of evidence-based care.

INFORMATION SYSTEMS

The patients included in this report were admitted to the EpicLatino network sites from January 1, 2020 to December 31, 2020. The patients remained hospitalized in one of the NICUs of the EpicLatino network for a minimum of 24 hours or died or were transported to a second or third level unit in that term. There was a total of 3,603 admissions including 52 readmissions.

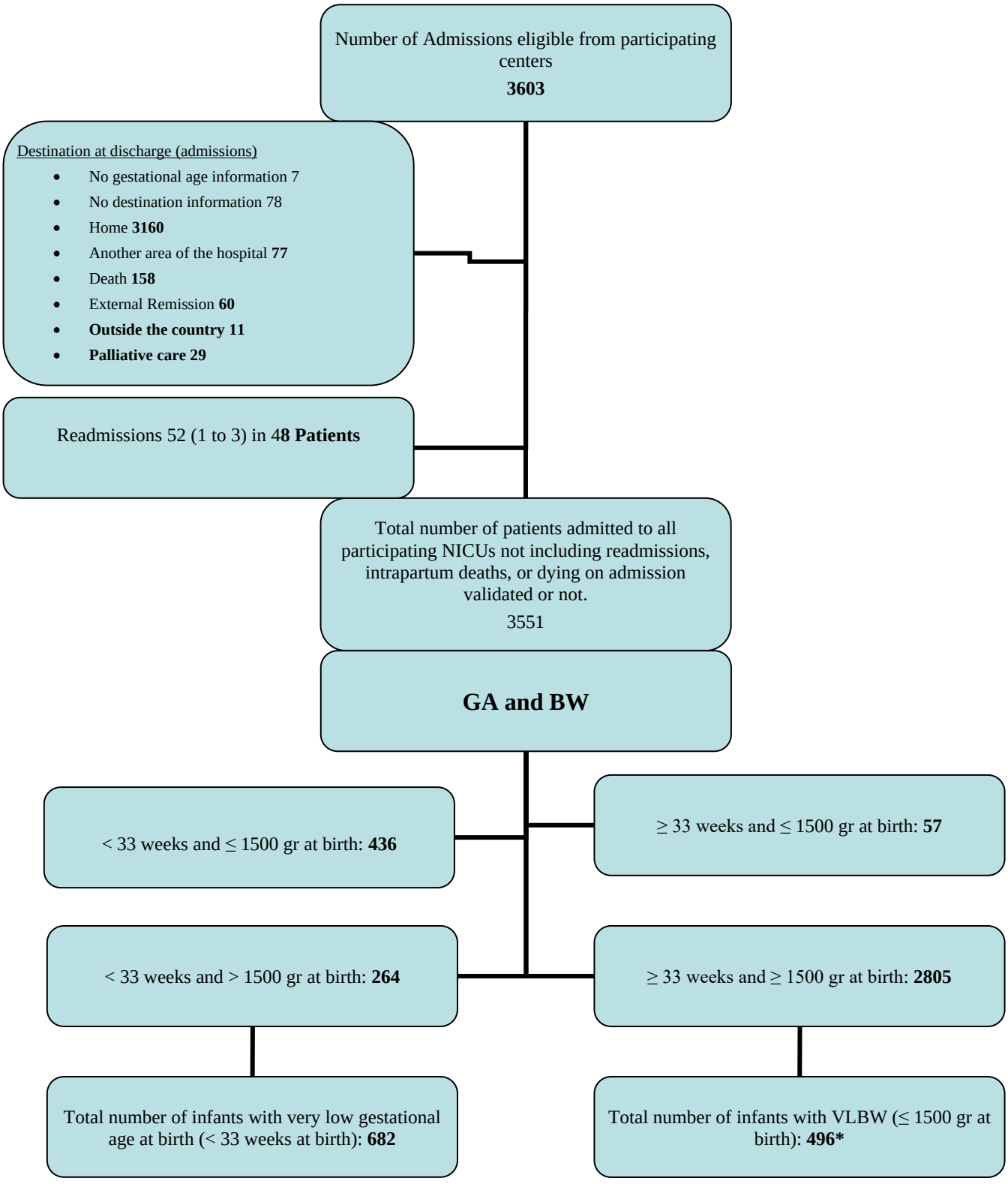
Patient information was collected retrospectively from medical records by researchers or their associates using standardized definitions and protocols present in the network operating manual available to all participating NICUs. This information was entered into a computer using the program that allows for errors to be reviewed locally prior to being sent to the Research Center for Maternal and Child Care (MiCARE) in Toronto. The information of the patients in the different NICUs is available only to the researcher corresponding to each NICU. All data that could identify the patient were removed BEFORE the data was transferred to the coordinating center. The confidentiality of the patients was strictly preserved.

As the responsibility of the local researcher in each participating center, the information is stored in a secure data source of the NICU or in a secure alternative site such as a medical file, a computer area, etc. At the coordinating center, the central data source is stored in a secure computer located on a server and a copy is maintained and secured by the Mount Sinai Hospital's IT and technology department.

At the coordinating center, analyzes by variable, between two variables and multiple variables are conducted both for the entire group and for each individual center with at least 20 patients per year. Multiple logistic regression analysis is used to identify risk factors associated with increased mortality and morbidity. The pooled information allows the presentation of graphs of mortality and morbidity results from Gestational Age and Birthweight. Similar systems have been used to guide stratification in randomized studies, assist quality assurance, and predict resource utilization. The STATA 17 Program was used, StataCorp, 4905 Lakeway Drive, College Station, Texas 77845 USA

A. DESCRIPTIVE ANALYSIS

DESCRIPTIVE ANALYSIS: GENERAL DATA



Patients Flowchart. *There are 3 cases without gestational age but with birthweight.

R

PRESENTATION 1

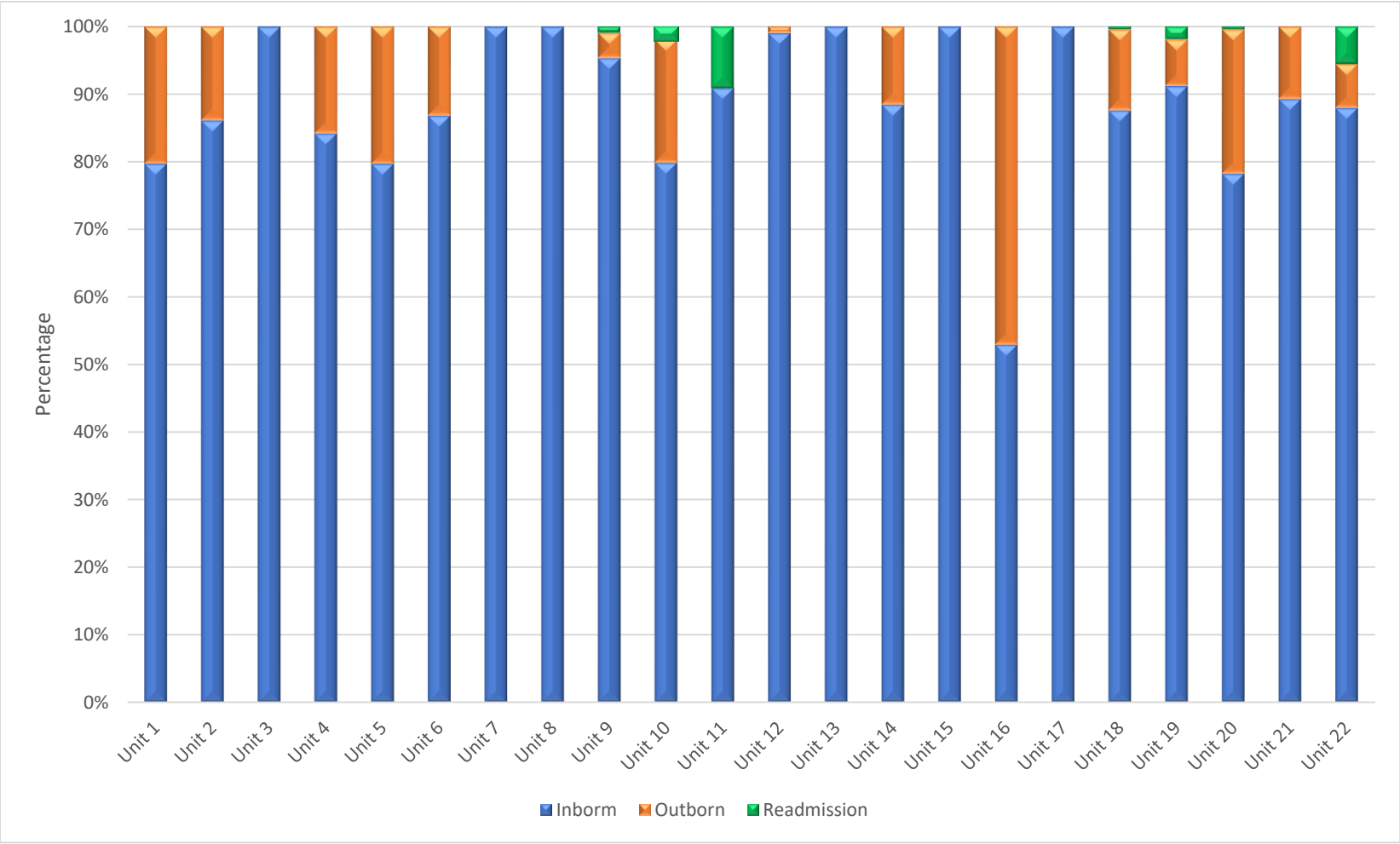
Number of Admissions in the Participating Centers (Table)

NICUs	Frequency	No validated*	Inborn	Outborn	Total Including Readmissions	Readmissions
Unit 1	**N**	0	118	30	148	
	%	0%	80%	20%		0%
Unit 2	**N**	1	31	5	36	
	%	3%	86%	14%		0%
Unit 3	**N**	3	116	0	116	
	%	3%	100%	0%		0%
Unit 4	**N**	26	48	9	58	
	%	45%	84%	16%		0%
Unit 5	**N**	0	59	31	90	
	%	0%	80%	20%		0%
Unit 6	**N**	43	33	5	49	
	%	88%	87%	13%		0%
Unit 7	**N**	1	4	0	4	
	%	25%	100%	0%		0%
Unit 8	**N**	0	64	0	64	
	%	0%	100%	0%		0%
Unit 9	**N**	0	205	8	213	2
	%	0%	96%	4%		0.9%
Unit 10	**N**	0	250	57	307	6
	%	0%	81%	19%		2.0%
Unit 11	**N**	0	20	0	20	2
	%	0%	100%	0%		10.0%
Unit 12	**N**	0	312	3	315	
	%	0%	99%	1%		0%
Unit 13	**N**	0	7	0	7	
	%	0%	100%	0%		0%

NICUs	Frequency	No validated*	Inborn	Outborn	Total Including Readmissions	Readmissions
Unit 14	**N**	0	23	3	26	
	%	0%	88%	12%		0%
Unit 15	**N**	18	17	0	18	
	%	100%	100%	0%		0%
Unit 16	**N**	0	9	8	17	
	%	0%	53%	47%		0%
Unit 17	**N**	0	27	0	27	
	%	0%	100%	0%		0%
Unit 18	**N**	4	212	29	241	1
	%	2%	88%	12%		0.4%
Unit 19	**N**	1	148	11	159	3
	%	1%	93%	7%		1.9%
Unit 20	**N**	0	802	219	1021	4
	%	0%	79%	21%		0.4%
Unit 21	**N**	0	50	6	56	
	%	0%	89%	11%		0%
Unit 22	**N**	0	571	40	611	34
	%	0%	93%	7%		5.6%
Total	**N**	97	3126	464	3603	52
	%	3%	87%	13%		1.4%

* The percentage is calculated from the total number of cases

Number of Admissions in the Participating Centers (Graph)



Comment: This analysis includes 3603 admissions to the participating NICUs during 1 of January 2020 to 31 of December 2019 validated or not, with 52 readmissions.

PRESENTATION 2

Score severity (SNAP II Y SNAPPE II) by NICUs (table)

NICU	Admissions **With information**	Without Information	Mean	
			SNAPE Score	SNAPEPE II Score
Unit 1	147	1	3.3	7.3
Unit 2	32	4	7.3	19.4
Unit 3	114	2	4.4	9.6
Unit 4	28	30	0.3	0.3
Unit 5	9	81	0.0	1.3
Unit 6	31	18	12.9	18.4
Unit 7	4	0	2.3	10.3
Unit 8	62	2	4.6	6.0
Unit 9	211	2	3.1	4.9
Unit 10	301	6	2.0	2.9
Unit 11	20	0	9.0	13.1
Unit 12	125	190	2.9	4.1
Unit 13	7	0	3.0	3.0
Unit 14	24	2	14.3	16.2
Unit 15	17	1	3.0	14.4
Unit 16	17	0	18.1	23.1
Unit 17	27	0	14.9	18.7
Unit 18	239	2	10.2	13.1
Unit 19	157	2	12.8	18.1
Unit 20	996	25	2.6	3.7
Unit 21	55	1	4.3	6.4
Unit 22	596	15	1.1	1.9
General/average	3219	384	4.0	6.0

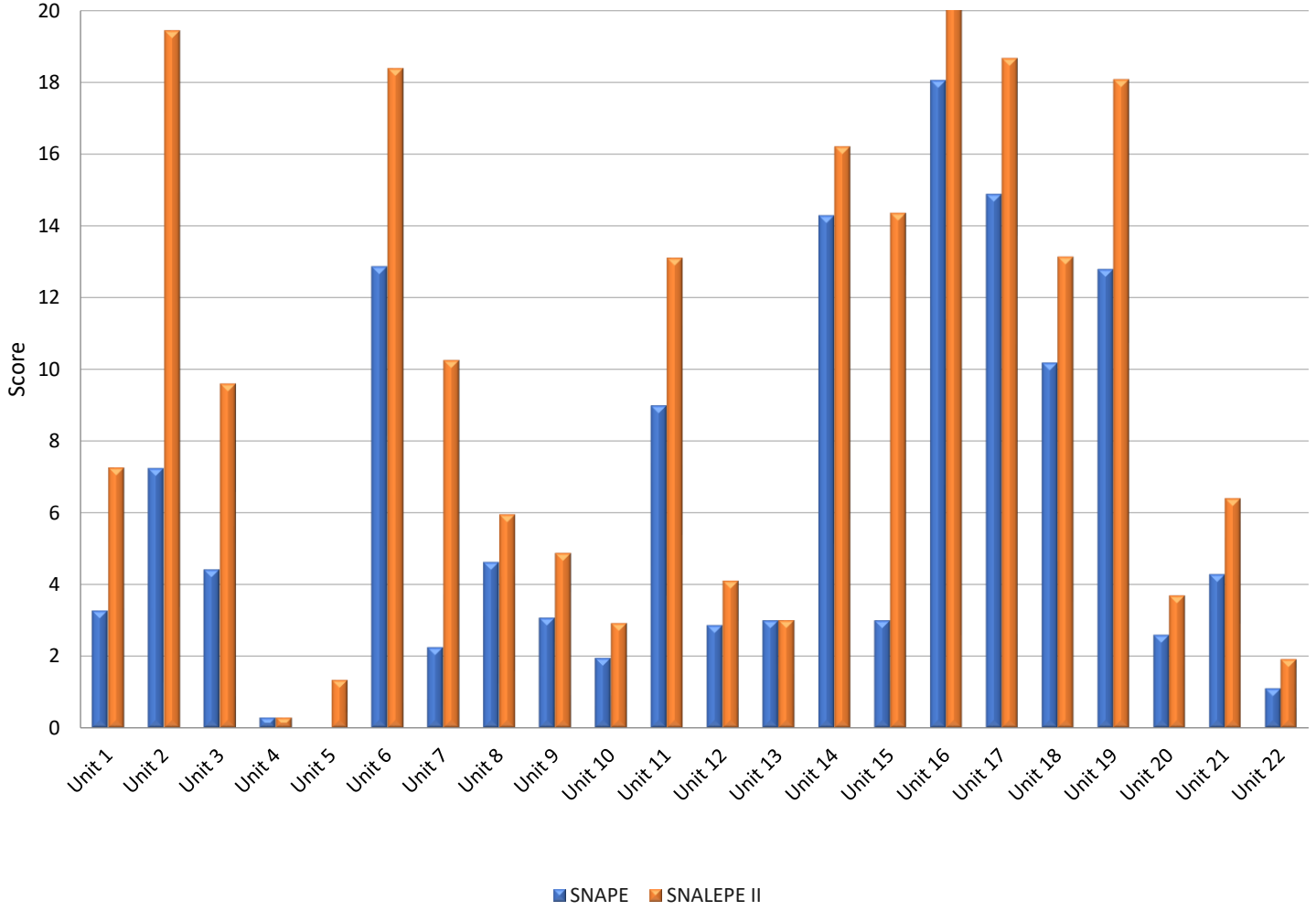
Comment: This analysis of Disease severity scores (SNAP AND SNAPPE II) includes 3699 admissions with readmissions (who had complete data). Comparison of the severity score between NICUs may show large variations due to the different Patient inclusion criteria of each NICU. The median of 9 units entering all patients was 0.

The SNAP calculation includes the following variables:

- Average arterial pressure (mm Hg)
- Lower temperature
- PO_2 (mm Hg) / FiO_2%)
- Lower serum pH
- Multiple seizures
- Diuresis (ml/k/h)

For the calculation of SNAPPE II the following variables are added:

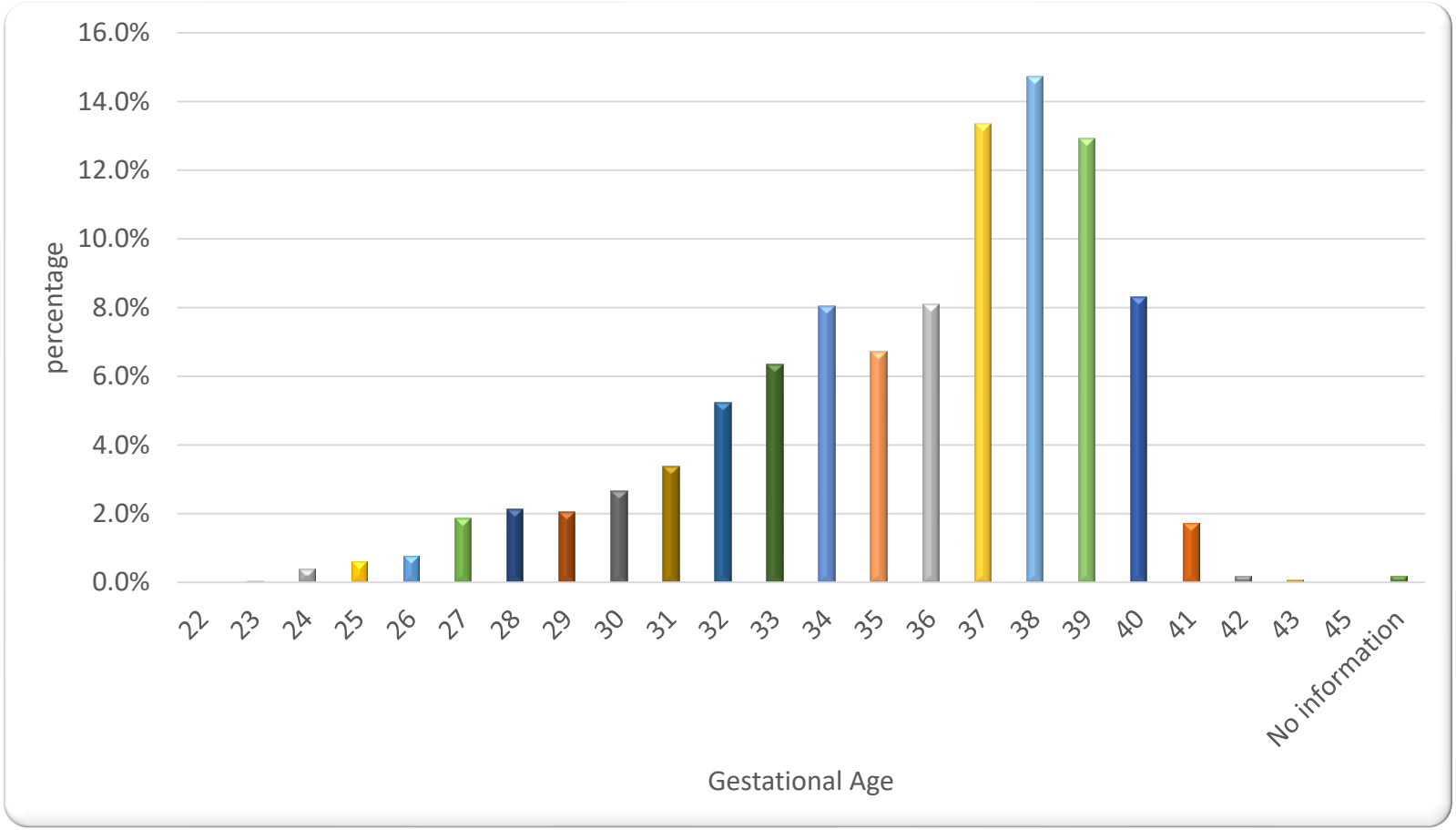
- Apgar at 5 minutes
- Birthweight (gr)
- Small for Gestational Age (less than 3rd percentile)


20
18
16
14
12
10
8
6
4
2
0
Score
Unit 1
Unit 2
Unit 3
Unit 4
Unit 5
Unit 6
Unit 7
Unit 8
Unit 9
Unit 10
Unit 11
Unit 12
Unit 13
Unit 14
Unit 15
Unit 16
Unit 17
Unit 18
Unit 19
Unit 20
Unit 21
Unit 22
SNAPE
SNALEPE II

ANALYSIS BASED ON THE NUMBER OF ELIGIBLE NEWBORNS ADMITTED TO PARTICIPATING URNS

PRESENTATION 3

Distribution of Patients by Gestational Age (Gestational Age) (Graph)



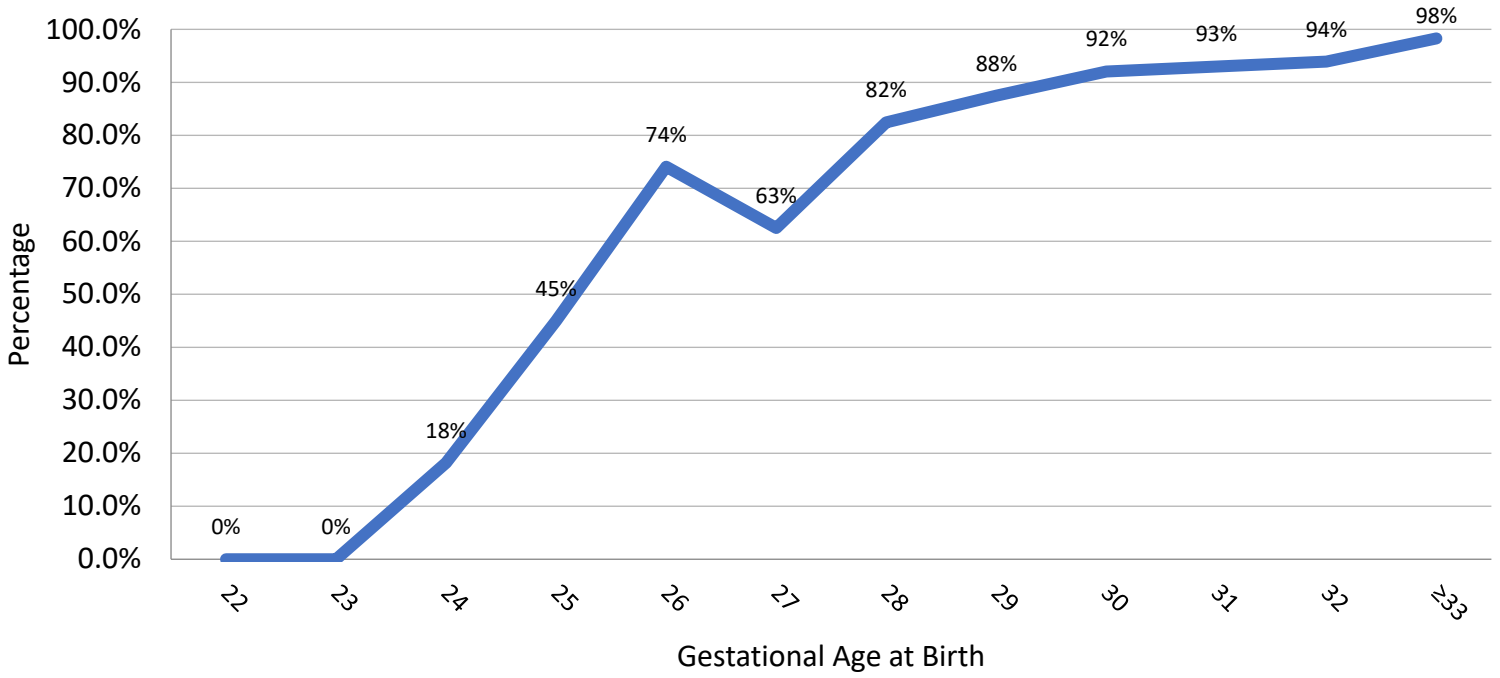
Distribution of Patients by Gestational Age (Gestational Age) (Table)

stational Age weeks*	n	Percentage	umulative Percentage
22	1	0.03%	0.03%
23	2	0.06%	0.09%
24	11	0.32%	0.41%
25	20	0.58%	0.98%
26	27	0.78%	1.77%
27	56	1.62%	3.39%
28	74	2.14%	5.53%
29	72	2.08%	7.61%
30	88	2.55%	10.16%
31	114	3.30%	13.45%
32	181	5.24%	18.69%
33	217	6.28%	24.97%
34	279	8.07%	33.04%
35	235	6.80%	39.84%
36	285	8.25%	48.09%
37	466	13.48%	61.57%
38	519	15.02%	76.59%
39	453	13.11%	89.70%
40	287	8.30%	98.00%
41	58	1.68%	99.68%
42	7	0.20%	99.88%
43	3	0.09%	99.97%
45	1	0.03%	100.00%
Total	3,456	0.03%	0.03%

Comment: The distribution of patients by Gestational Age. Only validated patients and readmissions were excluded.

PRESENTATION 4

NICU Discharge Survival by Gestational Age (Gestational Age) at birth (Graph)



Transferred and palliative patients are included as survivors, many units generally do not resuscitate infants <24 weeks.

NICU Discharge Survival by Gestational Age (Gestational Age) at birth (Table)

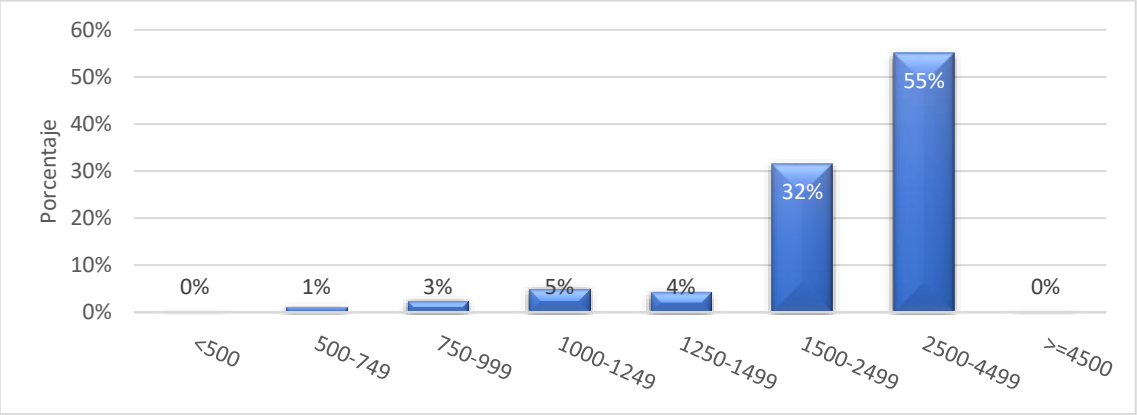
Gestational Age weeks	Survived	Deaths	No destination information	Percentage of survival
22	0	1	1	0.0%
23	0	2	2	0.0%
24	2	9	11	18.2%
25	9	11	20	45.0%
26	20	7	27	74.1%
27	35	21	56	62.5%
28	61	13	74	82.4%
29	63	9	72	87.5%
30	81	7	88	92.0%
31	106	8	114	93.0%
32	170	11	181	93.9%
≥33	2802	8	2810	98.3%
Total	**3349**	**107**	**3456**	**96.9%**

Discharge with palliative care, transferred and referred patients are included.

Comment: For the survival calculation, patients with complete data were included (validated). Readmissions were excluded. The overall survival was 96.9%. These data should be analyzed with caution because not all NICUs included patients younger than 24 weeks. Another error factor is because many units do not include patients who died in the delivery room so deaths in the delivery room are not included in this data. The outcome of the transfers is also unknown. Note that over 25 weeks survival > 50% is achieved.

PRESENTATION 5

Distribution of Patients by Birth Weight

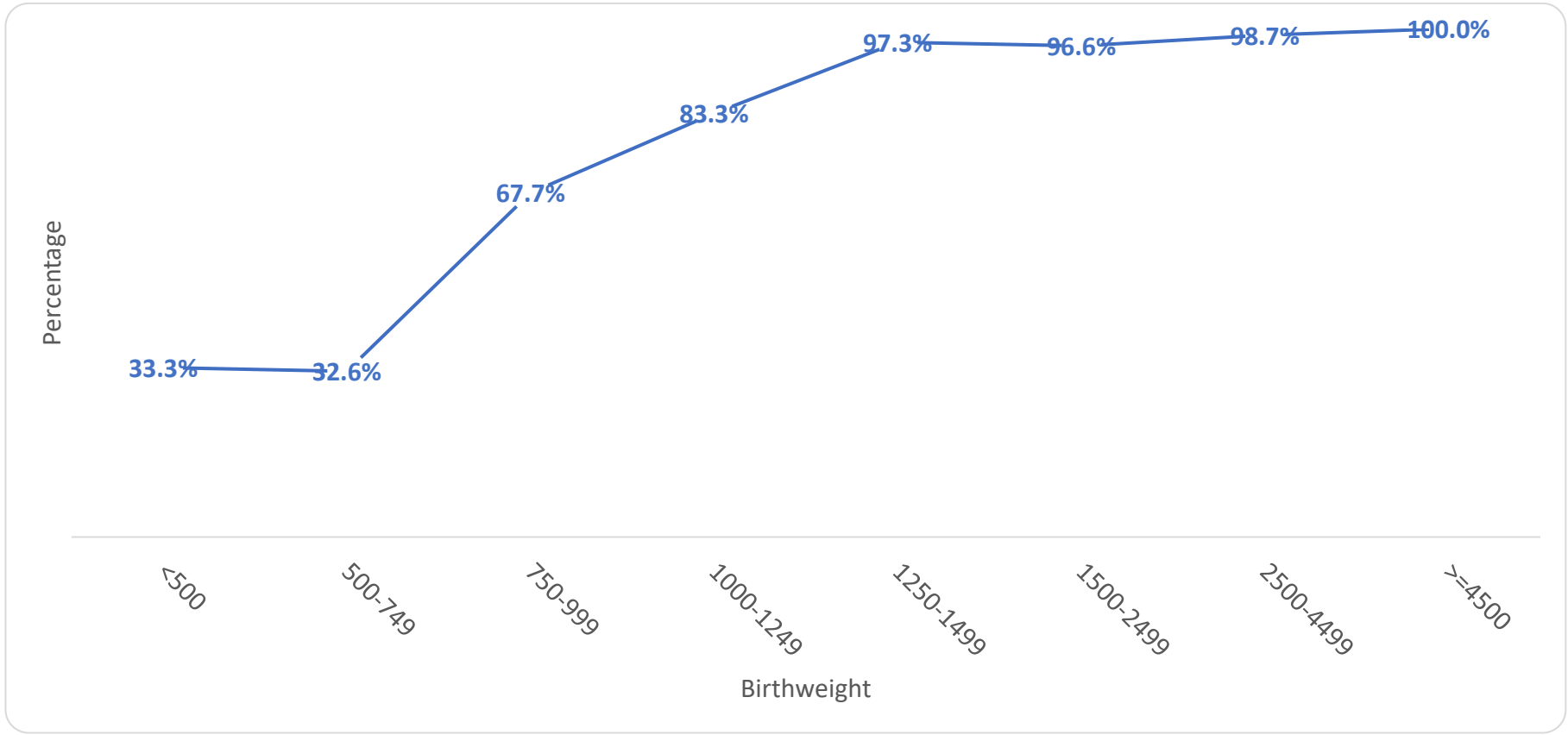


Birthweight gr	Total admissions n	Percentage	Accumulated percentage
<500	3	0.1%	0.1%
500-749	42	1.2%	1.3%
750-999	87	2.5%	3.8%
1000-1249	171	4.9%	8.8%
1250-1499	147	4.3%	13.0%
1500-2499	1,091	31.6%	44.6%
2500-4499	1,904	55.1%	99.7%
≥4500	11	0.3%	100.0%
Total	3,456		

Comment: This report should be analyzed with caution because not all NICUs included in their database, the admission of patients under 500 grams and deaths in the delivery room are not includes and some only report under 33 weeks or under 2000 gr. This report includes the data available in the database (validated).

PRESENTATION 6

NICU Discharge Survival by Birthweight



NICU Discharge Survival by Birthweight (Table)

Birthweight (g)	Total number of patients	Mortality	Survived infants	Percentage
<500	3	2	1	33.33%
500-749	42	28	14	33.33%
750-999	87	26	61	70.11%
1000-1249	171	26	145	84.80%
1250-1499	147	4	143	97.28%
1500-2499	1091	37	1,054	96.61%
2500-4499	1904	24	1,880	98.74%
>=4500	11	0	11	100.00%
Total	**3,456**	**147**	**3,309**	

Transfers and palliative patients are included as survivors; it does not include delivery room deaths.
Comment: This report should be analyzed with caution because not all NICUs included in their database the admission of patients under 500 grams and some only report under 33 weeks or under 2000 gr. This report includes the data available in the database (validated).

PRESENTATION 7

Maternal Characteristics

Parameters	Frequency*		Gestational Age (weeks)			Total
			<33	33-36	≥37	
Prenatal Control	No	n	47	37	56	140
		%	7%	4%	3%	4%
	Yes	n	575	951	1,628	3154
		%	89%	94%	91%	91%
	Unknown	n	24	28	110	162
		%	4%	3%	6%	5%
Drugs	No	n	640	1,008	1,765	3413
		%	99%	99%	98%	99%
	Yes	n	6	8	29	43
		%	1%	1%	2%	1%
Smoking	No	n	637	1,009	1,780	3426
		%	99%	99%	99%	99%
	Yes	n	9	7	14	30
		%	1%	3%	11%	5%
Hypertension/ Preeclampsia	Yes	n	210	255	116	581
		%	33%	25%	6%	17%
	No	n	404	723	1,553	2680
		%	63%	71%	87%	78%
	Unknown	n	32	38	125	195
		%	5%	4%	7%	6%
Diabetes	Yes	n	37	98	103	238
		%	6%	10%	6%	7%
	No	n	570	879	1,557	3006
		%	88%	87%	87%	87%
	Unknown	n	39	39	134	212
		%	6%	4%	7%	6%

Parameters	Frequency*		Gestational Age (weeks) <33	33-36	≥37	Total Mothers/ infants
Magnesium Sulphate	Yes	n	257	107	20	384
		%	40%	11%	1%	11%
	No	n	361	872	1,633	2866
		%	56%	86%	91%	83%
	Unknown	n	28	37	141	206
		%	4%	4%	8%	6%
Antenatal Steroids	YES	n	409	370	53	832
		%	63%	36%	3%	24%
	No	n	107	333	1,136	1576
		%	17%	33%	63%	46%
	Unknown	N	130	313	605	1048
		%	20%	31%	34%	30%
	Completed course within last week prior to birth	N	214	187	21	422
		%	52%	51%	40%	51%
	Completed course prior to 1 week before birth	N	59	90	27	176
		%	14%	24%	51%	21%
	Completed course but timing unknown	N	20	11	4	35
		%	5%	3%	8%	4%
	Partial within last 24 hours	N	91	65	0	156
		%	22%	18%	0%	19%
	Partial > 24 hours ago	n	21	11	1	33
		%	5%	3%	2%	4%
	Partial course but timing unknown	n	4	6	0	10
		%	1%	2%	0%	1%
Delivery Type	Vaginal	n	163	205	507	875
		%	25%	20%	28%	25%
	Cesarean	n	477	794	1191	2462
		%	74%	78%	66%	71%
	Unknown	n	6	17	96	119
		%	1%	2%	5%	3%

Parámetros	Frequency*		Gestational Age (weeks)			Total Infants
			<33	33-36	≥37	
PRESENTATION	Vertex	n	426	619	1108	2153
		%	66%	61%	62%	62%
	Breech	n	76	63	62	201
		%	12%	6%	3%	6%
	Other	n	112	286	482	880
		%	17%	28%	27%	25%
	Unknown	n	32	48	142	222
		%	5%	5%	8%	6%
PRM	**<24 Hours**	n	442	825	1,458	2725
		%	68%	81%	81%	79%
	24 Hours-1 Week	n	65	43	32	140
		%	10%	4%	2%	4%
	>1 Week	n	20	13	7	40
		%	3%	1%	0%	1%
	Unknown	n	119	135	297	551
		%	18%	13%	17%	16%
Chorioamnionitis	**Yes**	n	54	1467	1204	2725
		%	64%	95%	95%	94%
	No	n	22	66	52	140
		%	26%	4%	4%	5%
	Unknown	n	8	18	14	40
		%	10%	1%	1%	1%

Maternal Characteristics Continuation.

Comments: - Only patients with complete data were included for the analysis (validated).

* Chorioamnionitis is defined as suspected or confirmed documented in the medical record or the presence of maternal fever and leukocytosis or uterine tenderness.

PRESENTATION 8

Reanimation (Gestational Age < 31 weeks) (Table)

Characteristics		Gestational Age (weeks)								
		22	23	24	25	26	27	28	29	30
Number of Patients	n	1	2	11	20	27	56	74	72	88
Palliative Care in the delivery room	n	0	0	0	0	0	0	0	0	0
	%	0%	0%	0%	3%	0%	0%	0%	0%	0%
No Active Resuscitation Needed/Given*	n	0	0	0	0	0	4	10	12	17
	%	0.0%	0.0%	0.0%	0.0%	0.0%	7.1%	13.5%	16.7%	19.3%
Only CPAP	n	0	0	1	2	4	9	16	20	35
	%	0.0%	0.0%	9.1%	10.0%	14.8%	16.1%	21.6%	27.8%	39.8%
PPV and Bag Mask	n	0	1	0	1	5	11	5	18	19
	%	0.0%	50.0%	0.0%	5.0%	18.5%	19.6%	6.8%	25.0%	21.6%
PPV with ET Tube	n	1	1	10	16	18	33	41	24	20
	%	100%	50.0%	90.9 %	80.0%	66.7%	58.9%	55.4%	33.3%	22.7%
Chest Compressions	n	1	0	1	1	0	3	0	1	3
	%	100%	0.0%	9.1%	5.0%	0.0%	5.4%	0.0%	1.4%	3.4%
Epinephrine	n	0	0	1	0	0	1	0	2	0
	%	0.0%	0.0%	9.1%	0.0%	0.0%	1.8%	0.0%	2.8%	0.0%
Unknown	n	0	0	0	1	1	2	2	2	1
	%	0.0%	0.0%	0.0%	5.0%	3.7%	3.6%	2.7%	2.8%	1.1%
Initial FiO_2	21%	n	0	0	0	1	1	1	0	0	1
		%	0.0%	0.0%	0.0%	5.0%	3.7%	1.8%	0.0%	0.0%	1.1%
	>21%	n	0	2	6	14	12	24	37	38	44
		%	0.0%	100.0%	54.5%	70.0%	44.4%	42.9%	50.0%	52.8%	50.0%
	100%	n	1	0	0	2	2	8	7	8	11
		%	100%	0.0%	0.0%	10.0%	7.4%	14.3%	9.5%	11.1%	12.5%
	Unknown	n	0	0	3	1	3	2	2	0	2
		%	0%	0.0%	27.3%	5.0%	11.1%	3.6%	2.7%	0.0%	2.3%
	Without information	n	0	0	2	2	9	21	28	26	30
		%	0%	0.0%	18.2%	10.0%	33.3%	37.5%	37.8%	36.1%	34.1%

Characteristics			Gestational Age (weeks)								
			22	23	24	25	26	27	28	29	30
Number of Patients		n	1	2	11	20	27	56	74	72	88
Maximum FiO_2 Used	21%	n	0	0	0	0	0	0	1	0	1
		%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	1.1%
	22%-40%	n	0	2	3	5	9	14	27	28	24
		%	0.0%	100.0%	27.3%	25.0%	33.3%	25.0%	36.5%	38.9%	27.3%
	41%-70%	n	0	0	0	6	2	2	7	9	11
		%	0.0%	0.0%	0.0%	30.0%	7.4%	3.6%	9.5%	12.5%	12.5%
	>70%	n	1	0	0	3	3	14	8	9	16
		%	100.0 %	0.0%	0.0%	15.0%	11.1%	25.0%	10.8%	12.5%	18.2%
	Without information	n	0	0	8	6	13	26	31	26	36
		%	0.0%	0.0%	72.7%	30.0%	48.1%	46.4%	41.9%	36.1%	40.9%

* Interpretation may mean not required or not offered.
Comment: only patients with complete information for analysis were included. The resuscitation time was defined as the first 30 minutes of life, any subsequent resuscitation is not present in these tables. Note that the sum of the percentages may be different from 100% because some patients could have received more than one procedure and some patients do not have information, but the percentage was calculated for each procedure separately.

PRESENTATION 8A

Reanimation (Gestational Age ≥31 weeks) (table)

Characteristics		Gestational Age (weeks)						
		31	32	33	34	35	36	≥37
Number of Patients	n	114	181	217	279	235	285	1794
Palliative Care in the delivery room	n	1	0	0	0	0	0	0
	%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
No Active Resuscitation Needed/Given*	n	17	55	82	126	120	146	1019
	%	15.7%	31.4%	38.3%	46.7%	52.2%	53.1%	59.2%
Only CPAP	n	28	51	51	44	44	24	80
	%	25.5%	29.0%	24.5%	16.0%	19.3%	8.7%	4.7%
PPV and Bag Mask	n	27	27	41	24	17	27	120
	%	38.6%	23.3%	27.0%	12.3%	9.1%	12.7%	8.6%
PPV with ET Tube	N	30	33	24	21	8	5	36
	%	29.4%	19.5%	11.9%	7.9%	3.6%	1.8%	2.0%
Chest Compressions	n	1	4	1	1	2	0	7
	%	1.0%	2.3%	0.5%	0.4%	0.9%	0.0%	0.4%
Epinephrine	n	0	2	1	1	1	0	3
	%	0.0%	2.3%	1.1%	0.9%	1.4%	0.0%	0.6%
Unknown	n	6	6	3	9	5	10	73
	%	5.3%	3.3%	1.4%	3.2%	2.1%	3.5%	4.1%
Initial FiO_2 **21%**	n	4	5	9	4	7	8	79
	%	3.5%	2.8%	4.1%	1.4%	3.0%	2.8%	4.4%
22-99 %	n	44	65	65	84	49	72	406
	%	38.6%	35.9%	30.0%	30.1%	20.9%	25.3%	22.6%
100%	n	12	12	15	14	12	9	23
	%	10.5%	6.6%	6.9%	5.0%	5.1%	3.2%	1.3%
Unknown	n	10	5	6	4	3	3	25
	%	8.8%	2.8%	2.8%	1.4%	1.3%	1.1%	1.4%
No information	n	44	94	122	173	164	193	1261
	%	38.6%	51.9%	56.2%	62.0%	69.8%	67.7%	70.3%

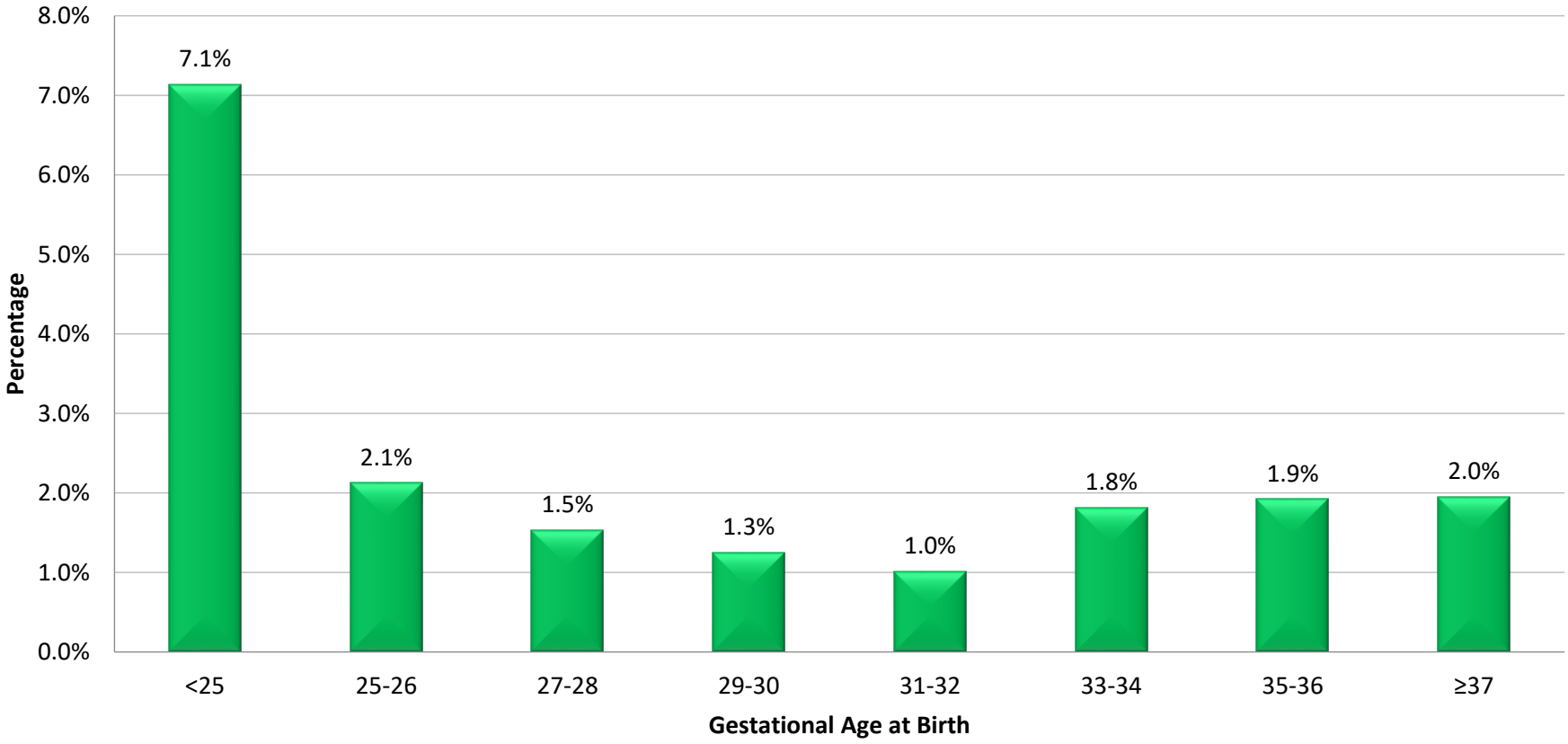
Characteristics			Gestational Age (weeks)						
			31	32	33	34	35	36	≥37
Number of Patients		n	114	181	217	279	235	285	1794
Maximum FiO_2 Used	21%	n	1	0	0	0	0	0	0
		%	181	217	279	235	285	1794	13.8%
	22%-40%	n	24	50	39	41	26	28	117
		%	21.1%	27.6%	18.0%	14.7%	11.1%	9.8%	6.5%
	41%-70%	n	11	7	13	13	7	1	20
		%	9.6%	3.9%	6.0%	4.7%	3.0%	0.4%	1.1%
	>70%	n	15	18	19	16	16	10	31
		%	13.2%	9.9%	8.8%	5.7%	6.8%	3.5%	1.7%
	No information	n	61	103	139	188	173	211	1379
		%	53.5%	56.9%	64.1%	67.4%	73.6%	74.0%	76.9%

* Interpretation may mean not required or not offered.

Comment: only patients with complete information for analysis were included. The resuscitation time was defined as the first 30 minutes of life, any subsequent resuscitation is not present in these tables. Note that the sum of the percentages may be different from 100% because some patients could have received more than one procedure and some patients do not have information, but the percentage was calculated for each procedure separately.

PRESENTATION 9

Early Sepsis (by Gestational Age) in < 3 days of birth/Admission (graph)



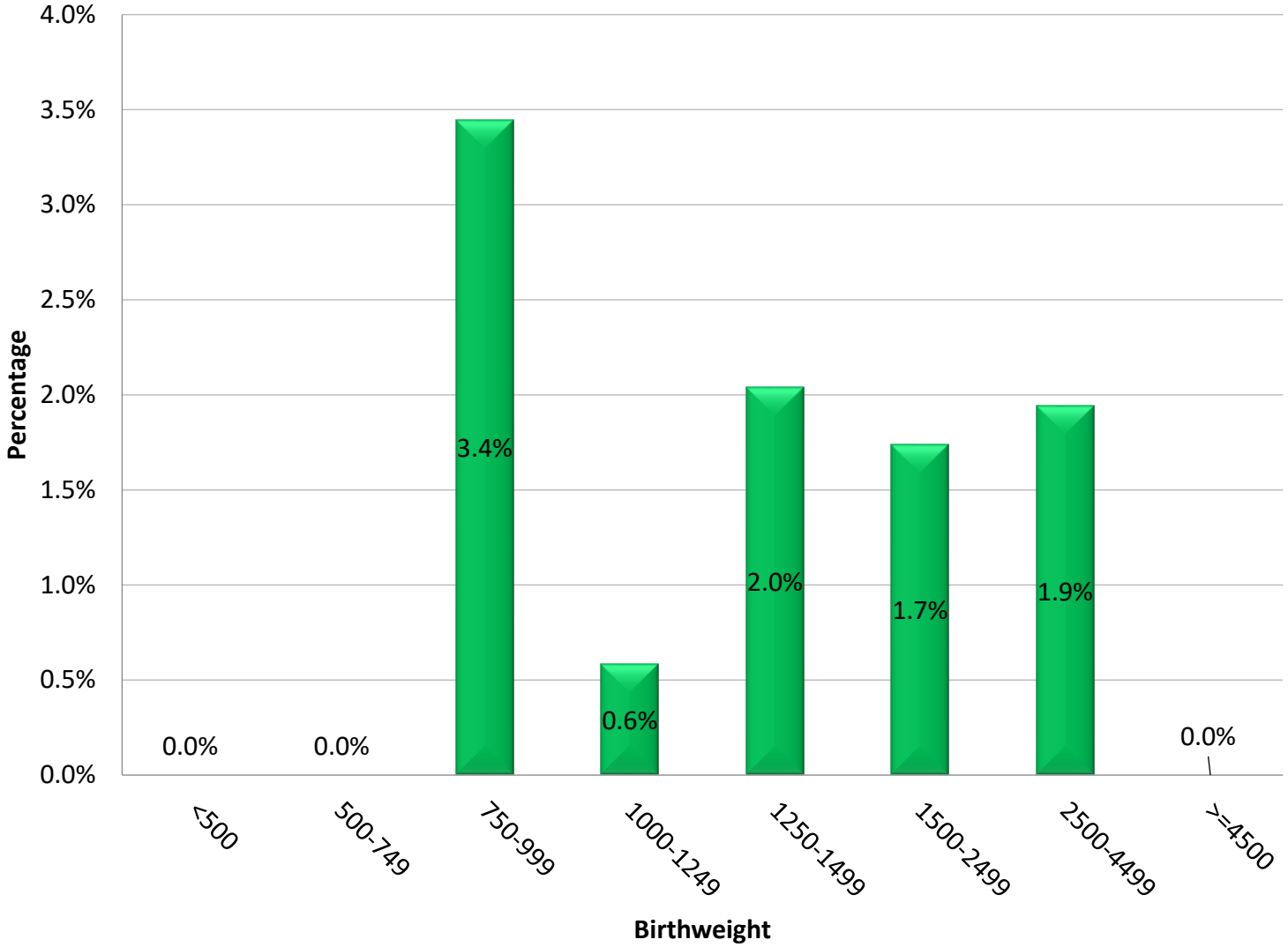
Early Sepsis (by Gestational Age) in < 3 days of birth/Admission (table)

Gestational Age (weeks)	Total number number of Infants	Total number of Infected Infants < 3 days of stay	Percentage of Infected Infants	Total number of Microorganisms	Microorganisms						
					CONS	E coli	*Staph. aureus*	GBS	Other Germs	Listeria	Other gram -
<25	14	1	7.1%	1	0	0	0	0	0	0	1
25-26	47	1	2.1%	1	0	0	0	0	0	0	1
27-28	130	2	1.5%	2	2	0	0	0	0	0	0
29-30	160	2	1.3%	4	1	0	0	0	0	0	3
31-32	295	3	1.0%	3	0	0	0	0	0	1	2
33-34	496	9	1.8%	12	1	1	0	0	0	3	7
35-36	520	10	1.9%	11	0	5	1	0	0	0	5
≥37	1,794	35	2.0%	38	8	4	6	3	1	0	16
Total	3456	63	1.8%	72	12	10	7	3	1	4	35

Comment: only patients with complete information were included. Early sepsis is considered when there is a blood culture and/or culture of the spinal fluid with bacteria or fungi in the first two days of life or admission. For the analysis of early infection, patients with complete data by Gestational Age at birth were included. Among the other gram-negative germs are *Klebsiella, Pseudomona, Serratia* etc. Infections in blood and CSF are counted separately.

PRESENTATION 9A

Early Sepsis (< 3 days of birth/Admission) by Birthweight (graph)



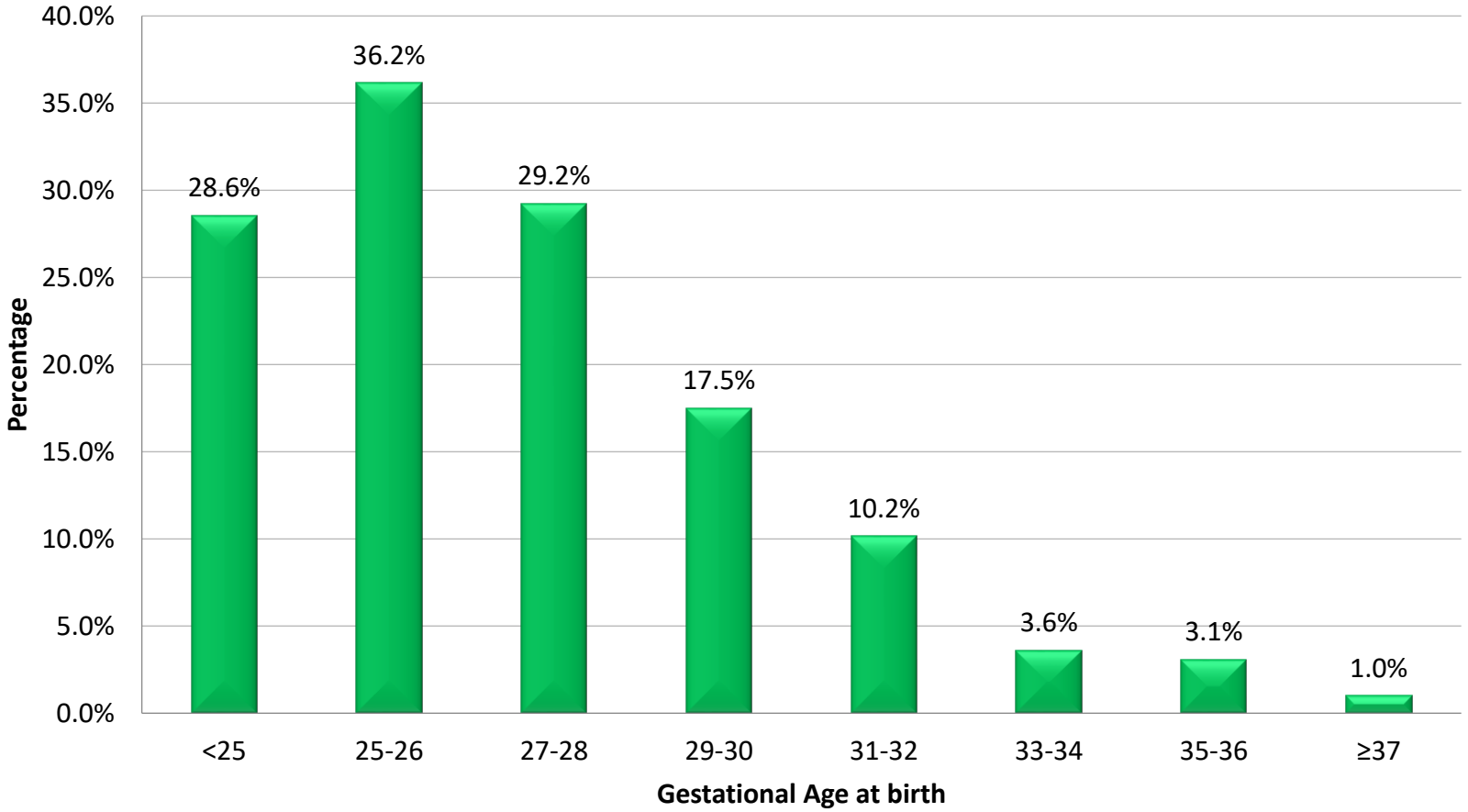
Early Sepsis (< 3 days of birth/Admission) by Birthweight (table)

Birthweight (g)	Total number of Infants	Total number of Infected Infants < 3 days of stay	Percentage of Infected Infants	Total number of Microorganisms	Microorganisms						
					CONS	E coli	*Staph. aureus*	GBS	Other Germs	Listeria	Other Gram -
<500	3	0	0.0%								
500-749	42	0	0.0%								
750-999	87	3	3.4%	3	0	0	0	0	0	0	3
1000-1249	171	1	0.6%	1	1	0	0	0	0	0	0
1250-1499	147	3	2.0%	4	2	0	0	0	0	0	2
1500-2499	1,091	19	1.7%	24	1	6	1	0	0	4	12
2500-4499	1,904	37	1.9%	40	8	4	6	3	1	0	18
>=4500	11	0	0.0%								
Total	3456	63	1.8%	72	12	10	7	3	1	4	35

Comment: only patients with complete information were included. Early sepsis is considered when there is a blood culture and/or positive culture of the spinal fluid for bacteria or fungi in the first two days of birth or admission. Low birthweight mortality may explain the low number of cases. Low number of cases in statistics should be with regarded with caution. CONS: Coagulase Negative Staph. GBS: Group B Strep. Infections in blood and CSF are counted separately.

PRESENTATION 10

Late Sepsis or Associated with Health Care (by Gestational Age) (graph)



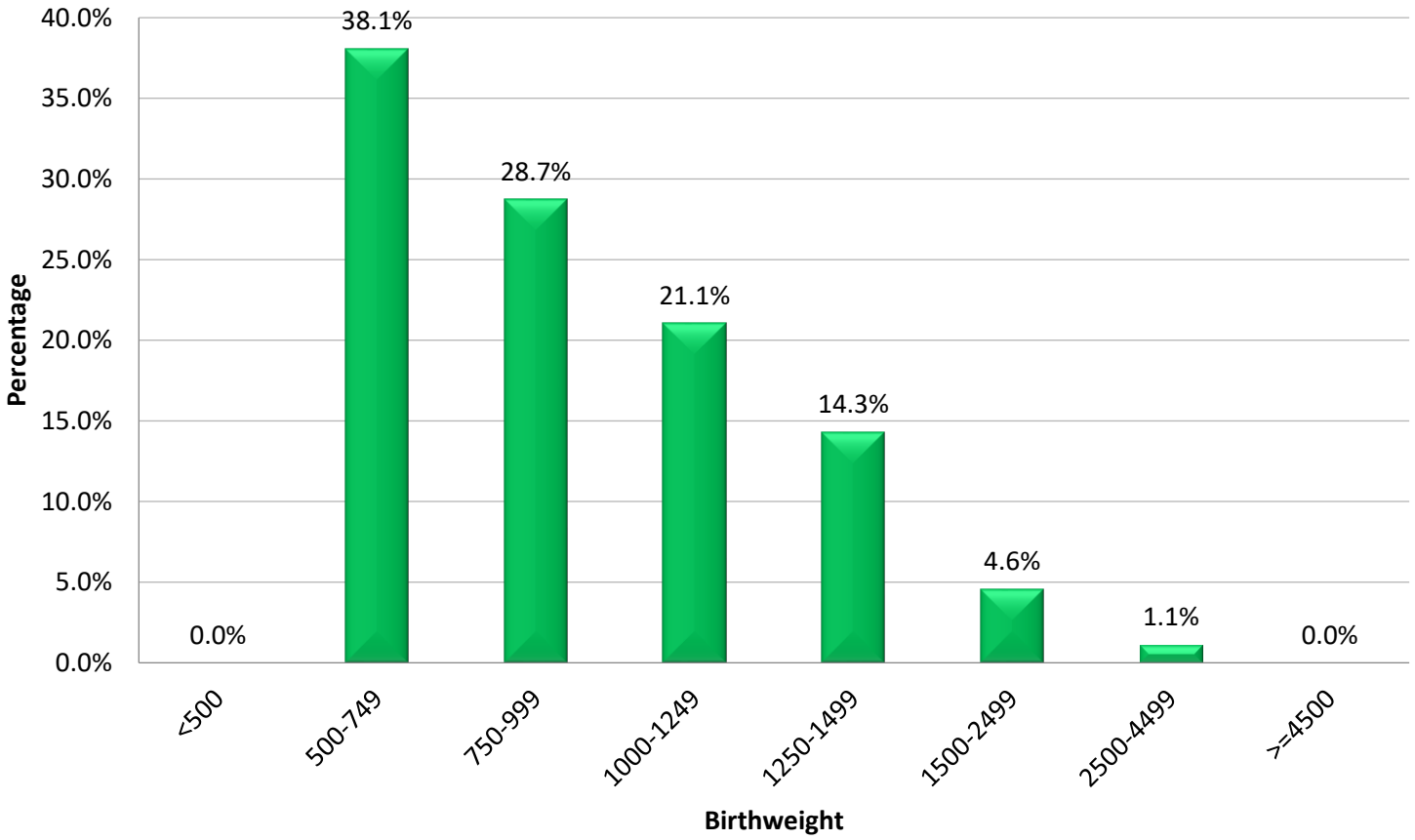
Late Onset Sepsis or Associated with Health Care (by Gestational Age) (table)

Gestational Age (weeks)	Total number of Infants	Total number of Infected Infants >2 days of stay	Percentage of Infected Infants	Total number of Microorganisms	Microorganisms				
					CONS	*E. Coli*	*Staph. aureus*	Fungi	Other Gram -
<25	14	4	28.6%	7	1			1	5
25-26	47	17	36.2%	42	13	8	3	1	17
27-28	130	38	29.2%	58	15	7	6	4	26
29-30	160	28	17.5%	44	15	1	6	1	21
31-32	295	30	10.2%	43	13	4	2	3	21
33-34	496	18	3.6%	21	9	3	1		8
35-36	520	16	3.1%	22	4	1	1		16
≥37	1794	18	1.0%	22	9	2	2	2	7
Total	3456	169	4.9%	259	79	26	21	12	121

Comment: only patients with complete information were included. Late sepsis or associated with health care is considered when there is a positive blood culture or culture of spinal fluid for bacteria or fungi after the second day of life. Infants who died or left in the first two days of birth were excluded. Other Gram-negative bacteria correspond to: *Klebsiella, Serratia, Pseudomona*, etc. The incidence may be underestimated due to high mortality in the lower gestational ages. Infections in blood and CSF are counted separately.

PRESENTATION 11

Late Sepsis or Associated with Health Care (by Birthweight)* (Graph)



Late Onset Sepsis or Associated with Health Care (by Birthweight)* (Table)

Birthweight	Total number of Infants	Total number of Infected Infants >2 days of stay	Percentage of Infected Infants	Total number of Microorganisms	Microorganisms				
					CONS	*E coli*	*Other Gram -*	*Staph. aureus*	Fungi
<500	3	0	0.0%	0					
500-749	42	16	38.1%	34	16	2	13	2	1
750-999	87	25	28.7%	52	11	8	27	4	2
1000-1249	171	36	21.1%	48	12	5	24	4	3
1250-1499	147	21	14.3%	33	13	1	15	1	3
1500-2499	1091	50	4.6%	67	18	8	31	7	3
2500-4499	1904	21	1.1%	25	9	2	11	3	
>=4500	11	0	0.0%	0					
Total	3456	169	4.9%	259	79	26	121	21	12

Comment: only patients with complete information were included. Late sepsis or associated with health care is considered when there is a positive blood culture or culture of spinal fluid for bacteria or fungi after the second day of life. Infants who died or left in the first two days of birth were excluded. Other Gram-negative bacteria correspond to: *Klebsiella, Serratia, Pseudomona*, etc. The incidence may be underestimated due to high mortality in the lower gestational ages. Infections in blood and CSF are counted separately.

PRESENTATION 12

Other Diagnosis / Interventions / Procedures by Gestational Age groups (table)

Characteristics			Gestational Age at Birth								
			<25	25-26	27-28	29-30	31-32	33-34	35-36	>=37	Total
Total		**n**	**14**	**47**	**130**	**160**	**295**	**496**	**520**	**1,794**	**3,456**
Prophylactic	**Indomethacin**	**n**	2	0	1	0	0	0	0	1	4
		%	14%	0%	1%	0%	0%	0%	0%	0%	0%
	Probiotics	**n**	1	4	9	21	30	77	86	375	603
		%	7%	9%	7%	13%	10%	16%	17%	21%	17%
RDS	**No**	**n**	3	7	36	66	173	401	468	1,693	2,847
		%	21%	15%	28%	41%	59%	81%	90%	94%	82%
	Definite	**n**	8	36	77	89	104	85	50	90	539
		%	57%	77%	59%	56%	35%	17%	10%	5%	16%
	Uncertain	**n**	2	4	15	6	19	17	4	16	83
		%	14%	9%	12%	4%	6%	3%	1%	1%	2%
	NA / Unknown	**n**	1	0	2	1	2	4	6	21	37
		%	7%	0%	2%	1%	1%	1%	1%	1%	1%
Surfactant		**n**	9	9	22	51	52	90	63	23	23
		%	64%	64%	47%	39%	33%	31%	13%	4%	1%
Pneumothorax[§]	**Diagnostic**	**n**	0	4	3	5	12	8	5	29	66
		%	0%	9%	2%	3%	4%	2%	1%	2%	2%
	Treatment **Observation**	**n**	0	0	0	0	3	1	2	10	16
		%					25%	13%	40%	34%	0%
	Treatment **Needle/Paracentesis/ Chest tube**	**n**	0	4	3	5	9	6	3	17	47
		%	0%	100%	100%	100%	75%	75%	60%	59%	1.4%
Seizures Suspected/ definite		n	1	6	12	6	11	5	9	54	104
		%	12.0%	21.0%	7.9%	4.2%	2.2%	1.4%	1.1%	2.5%	2.7%

Other Diagnosis / Interventions / Procedures by Gestational Age Groups Continuation

Characteristics			Gestational Age at Birth								
			<25	25-26	27-28	29-30	31-32	33-34	35-36	>=37	Total
		n	14	47	130	160	295	496	520	1,794	3,456
Surgery	Laparotomy	n	0	2	6	9	10	0	6	7	40
		%	0.0%	4.3%	4.6%	5.6%	3.4%	0.0%	1.2%	0.4%	1.2%
	Thoracotomy	n	0	1	1	3	5	1	0	2	13
		%	0.0%	2.1%	0.8%	1.9%	1.7%	0.2%	0.0%	0.1%	0.4%
	Shunt VP	n	0	2	1	0	0	0	1	1	5
		%	0.0%	4.3%	0.8%	0.0%	0.0%	0.0%	0.2%	0.1%	0.1%
Gastrointestinal Perforation	Spontaneous	n	0	1	2	1	4	0	2	6	16
		%	0.0%	2.1%	1.5%	0.6%	1.4%	0.0%	0.4%	0.3%	0.5%
	Related to NEC	n	0	5	7	10	4	1	1	4	32
		%	0.0%	10.6%	5.4%	6.3%	1.4%	0.2%	0.2%	0.2%	0.9%
	Unknown	n	0	1	4	1	4	2	1	1	14
		%	0.0%	2.1%	3.1%	0.6%	1.4%	0.4%	0.2%	0.1%	0.4%
Stenosis Acquired		n	0	1	3	0	3	2	0	3	12
		%	0.0%	2.1%	2.3%	0.0%	1.0%	0.4%	0.0%	0.2%	0.3%
Exchange Transfusion		n	0	0	0	0	1	0	0	4	5
		%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.2%	0.1%
Congenital Anomalies		n	1	1	5	10	26	28	37	116	224
		%	7.1%	2.1%	3.8%	6.3%	8.8%	5.6%	7.1%	6.5%	6.5%

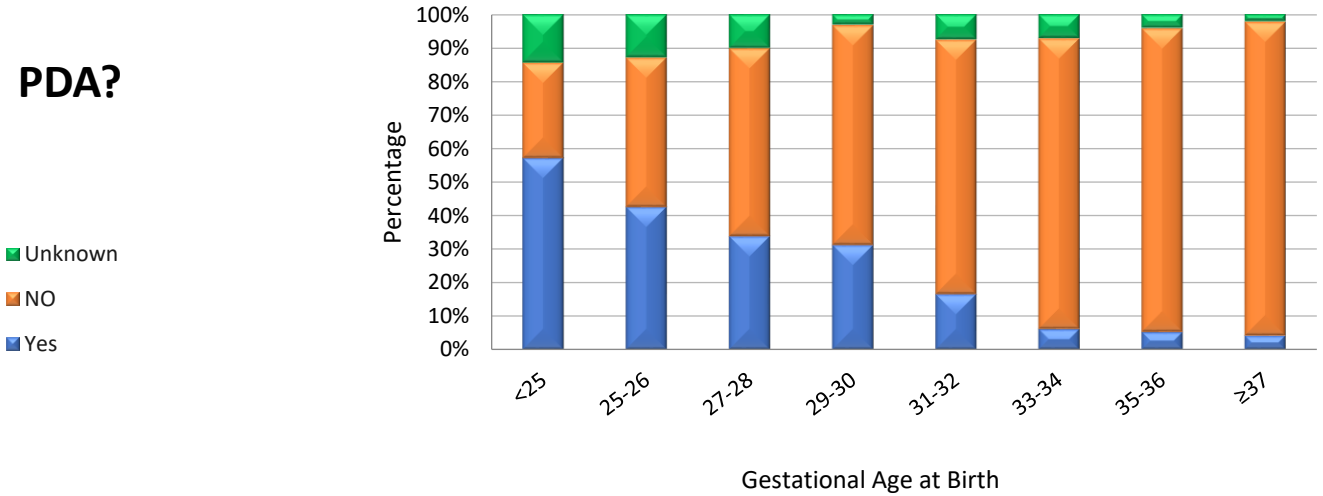
Comment: only patients with complete information were included. The percentage of each procedure was calculated over the total number of patients in each group. Some patients received more than one procedure. In treatment of pneumothorax, the difference in percentages not reported corresponds to patients without information of the treatment.

ANALYSIS BASED ON THE NUMBER OF INFANTS ELIGIBLE VERY PREMATURE (<33 WEEKS Gestational Age) OR INFANTS OF VERY LOW Birthweight (<1500 GRS AT BIRTH)

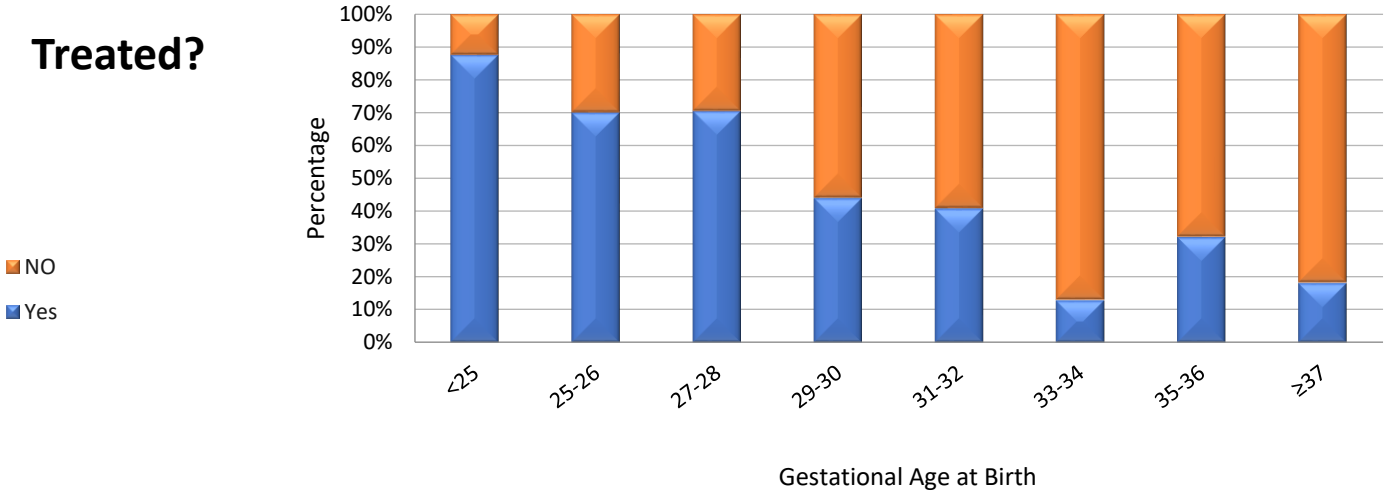
PRESENTATION 13

Presence and treatment for Patent Ductus Arteriosus (by Gestational Age at birth)

PDA?



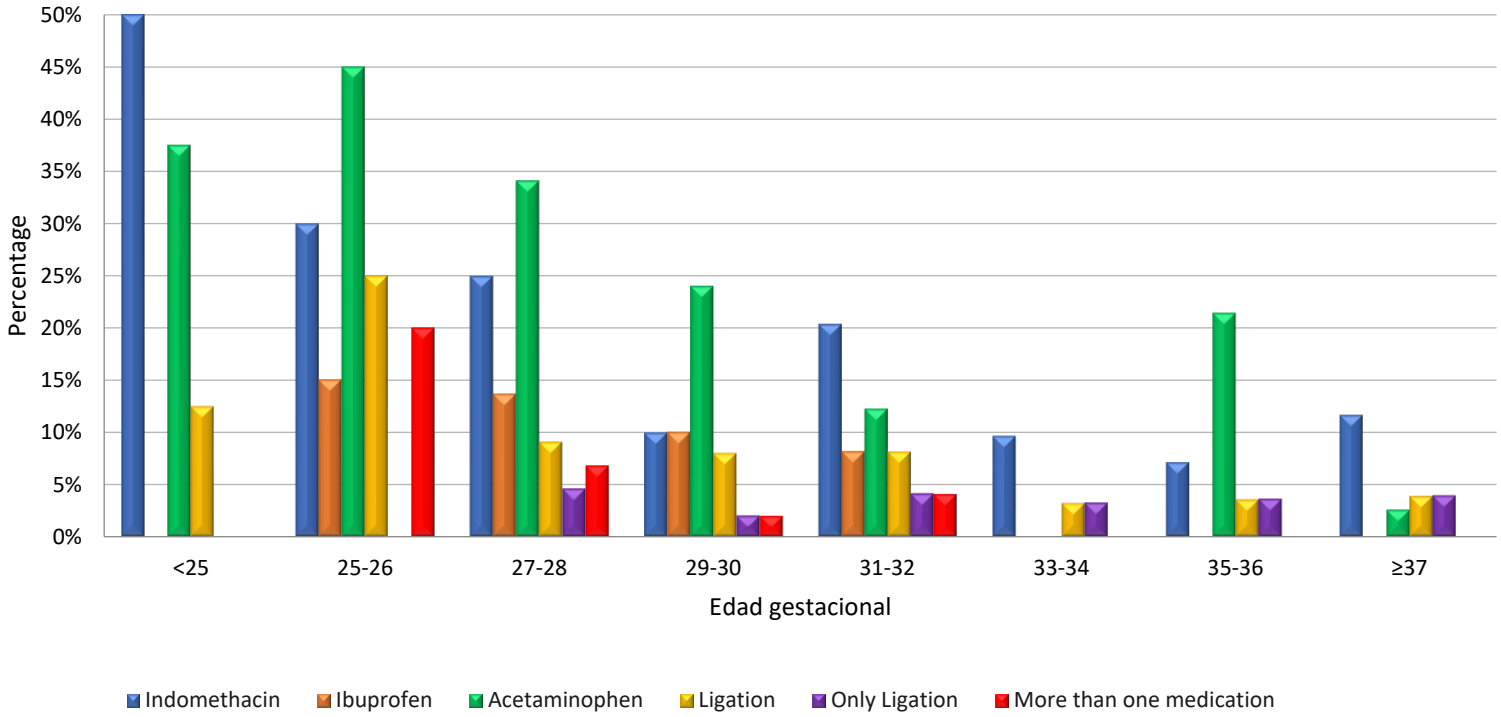
Treated?



Gestational Age (weeks)		n	PDA			PDA Treated		
			Yes	No	Unknown/Without information	Yes	No	Total
<25	n	14	8	4	2n	7	1	8
	%		57%	29%	14%	88%	13%	
25-26	n	47	20	21	6	14	6	20
	%		43%	45%	13%	70%	30%	
27-28	n	130	44	73	13	31	13	44
	%		34%	56%	10%	70%	30%	
29-30	n	160	50	105	5	22	28	50
	%		31%	66%	3%	44%	56%	
31-32	n	295	49	224	22	20	29	49
	%		17%	76%	7%	41%	59%	
33-34	n	496	31	430	35	4	27	31
	%		6%	87%	7%	13%	87%	
35-36	n	520	28	471	21	9	19	28
	%		5%	91%	4%	32%	68%	
≥37	n	1794	77	1679	38	14	63	77
	%		4%	94%	2%	18%	82%	
Total	n	3456	307	3007	142	142	211	353
	%		9%	87%	4%	40%	60%	

PRESENTATION 13A

Patent Ductus Arteriosus Type of Treatment (by Gestational Age at birth) (graph).



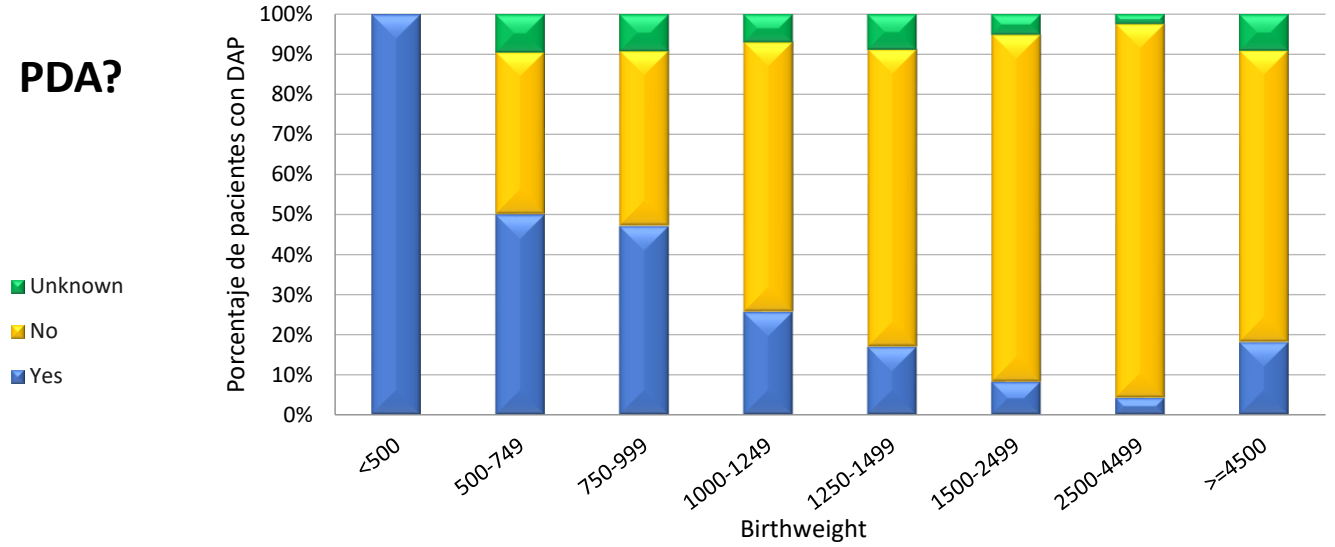
Comment: For the PDA analysis, only the patients with complete data were included. The calculation for the PDA treatment was made over the total number the patients with PDA diagnosis in each gestational age group. Patients with ligation and medical therapy refer to report of medical treatment as well as ligation.

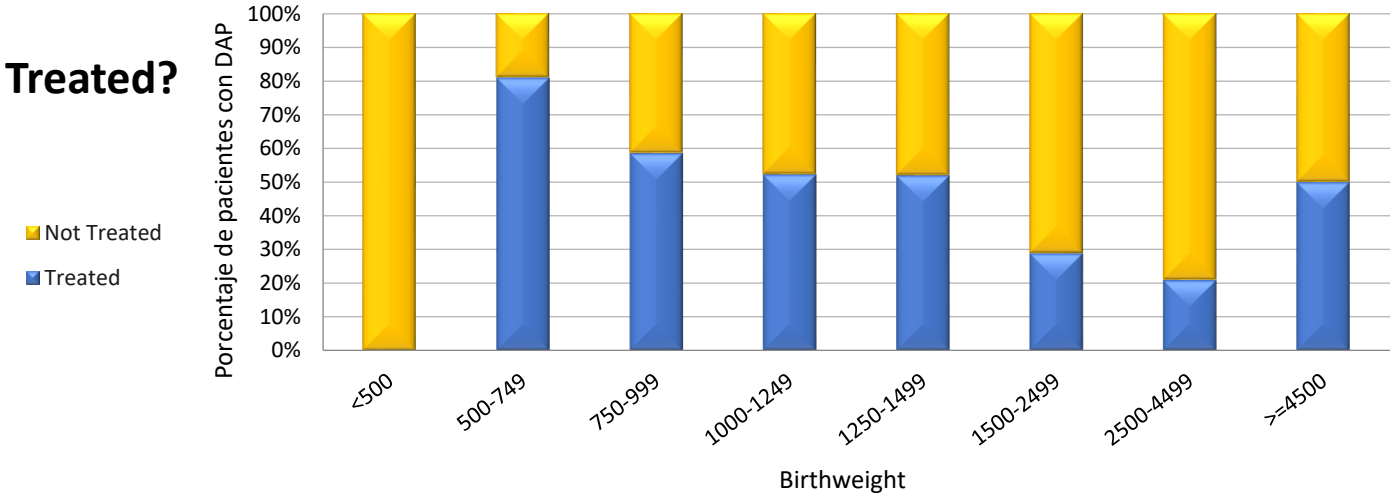
Patent Ductus Arteriosus Treatment (by Gestational Age at birth) Continuation.

Gestational Age (weeks)	Total number of Patients with PDA	Treatment				Only/Combine Therapy	
		Indomethacin	Ibuprofen	Acetaminophen	Ligation	Only Ligation	More than one medication
<25	8	4	0	3	1	0	0
		50%	0%	38%	13%	0%	0%
25-26	20	6	3	9	5	0	4
		30%	15%	45%	25%	0%	20%
27-28	44	11	6	15	4	2	3
		25%	14%	34%	9%	5%	7%
29-30	50	5	5	12	4	1	1
		10%	10%	24%	8%	2%	2%
31-32	49	10	4	6	4	2	2
		20%	8%	12%	8%	4%	4%
33-34	31	3	0	0	1	1	0
		10%	0%	0%	3%	3%	0%
35-36	28	2	0	6	1	1	0
		7%	0%	21%	4%	4%	0%
≥37	77	9	0	2	3	3	0
		12%	0%	3%	4%	4%	0%
Total	307	50	18	53	23	10	10
		16%	6%	17%	7%	3%	3%

PRESENTATION 14

Presence and treatment for Patent Ductus Arteriosus (by Birthweight) (graph)





Presence and treatment for Patent Ductus Arteriosus (by Birthweight) (table)

Birthweight (grs)		Total Patients	PDA			Treatment	
			Yes	No	Unknown	Yes	No
< 500	n	3	3	0	0	0	3
	%		100%	0%	0%	0%	100%
500-749	n		21	17	4	17	4
	%	42	50%	40%	10%	81%	19%
750-999	n		41	38	8	24	17
	%		47%	44%	9%	59%	41%
1000-1249	n	87	44	115	12	23	21
	%		26%	67%	7%	52%	48%
1250-1499	n	171	25	109	13	13	12
	%		17%	74%	9%	52%	48%
1500-2499	n	147	90	945	56	26	64
	%		8%	87%	5%	29%	71%
2500-4499	n	1091	81	1775	48	17	64
	%		4%	93%	3%	21%	79%
>=4500	n	11	2	8	1	1	1
	%		18%	73%	9%	50%	50%
Total	n	3456	307	3007	142	121	186
	%		9%	87%	4%	39%	61%

PRESENTATION 14A

Type of Treatment for Patent Ductus Arteriosus (by Birthweight) (table)

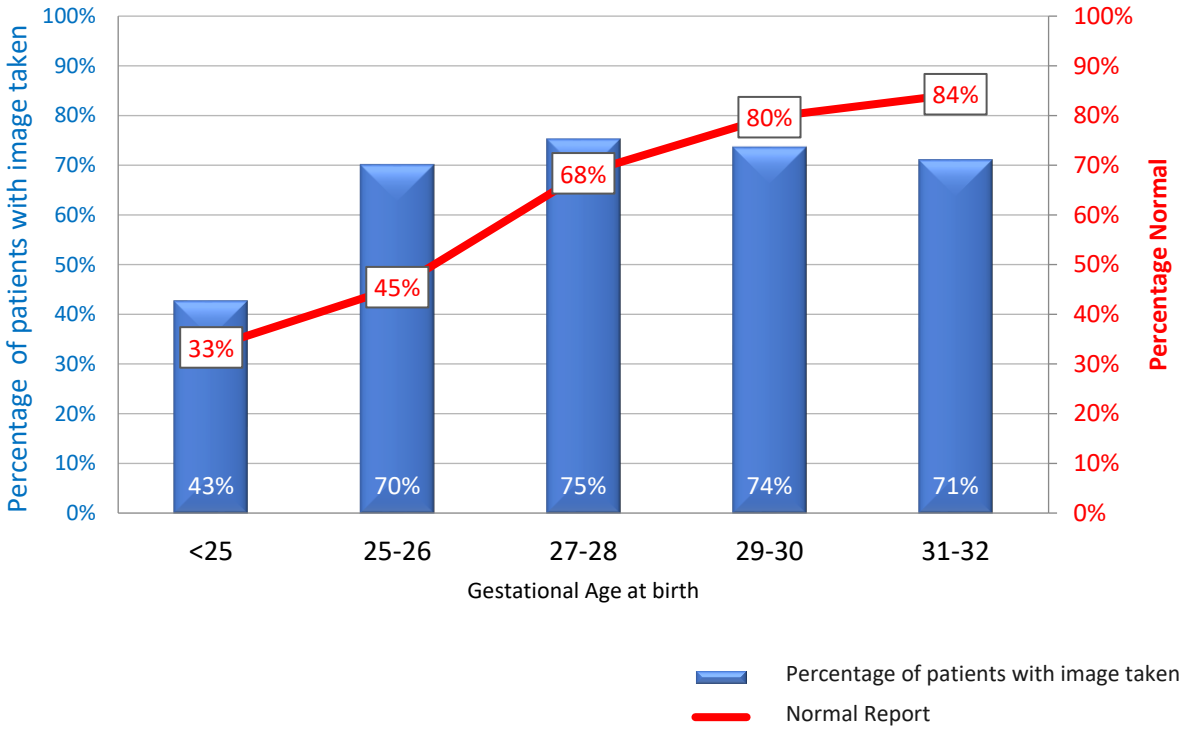
Birthweight (gr)	Total number of Patients with PDA	Treatment				Only/Combine Therapy	
		Indomethacin	Ibuprofen	Acetaminophen	Ligation	Only Ligation	More than one medication
<500	3	0	0	0	0	0	0
500-749	21	8	2	8	3	0	1
		38%	10%	38%	14%	0%	5%
750-999	41	8	5	16	3	0	5
		20%	12%	39%	7%	0%	12%
1000-1249	44	9	4	10	7	3	3
		20%	9%	23%	16%	7%	7%
1250-1499	25	3	2	7	2	1	0
		12%	8%	28%	8%	4%	0%
1500-2499	90	11	5	8	5	3	1
		12%	6%	9%	6%	3%	1%
2500-4499	81	11	0	4	2	2	0
		14%	0%	5%	2%	2%	0%
>=4500	2	0	0	0	1	1	0
		0%	0%	0%	50%	50%	0%
Total	307	50	18	53	23	10	10
		28%	17%	18%	5%	3%	3%

B. ANALYSIS BASED ON THE NUMBER OF ELIGIBLE NEWBORNS SOME VERY PREMATURE (≤ 32 WEEKS GESTATIONAL AGE) OR VERY LOW WEIGHT NEWBORNS AT BIRTH (<1500 GRAMS AT BIRTH)

PRESENTATION 15

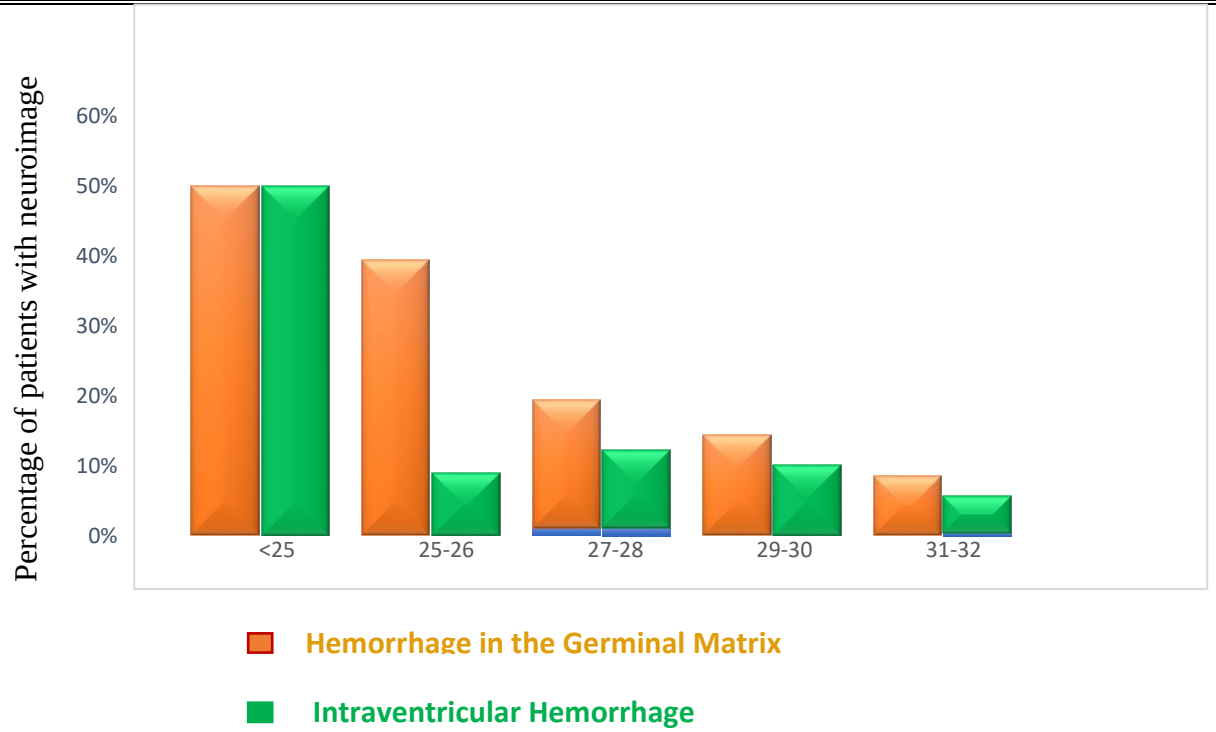
Findings in Neuroimaging in ≤ 32 weeks (by Gestational Age at birth) (table and graph)

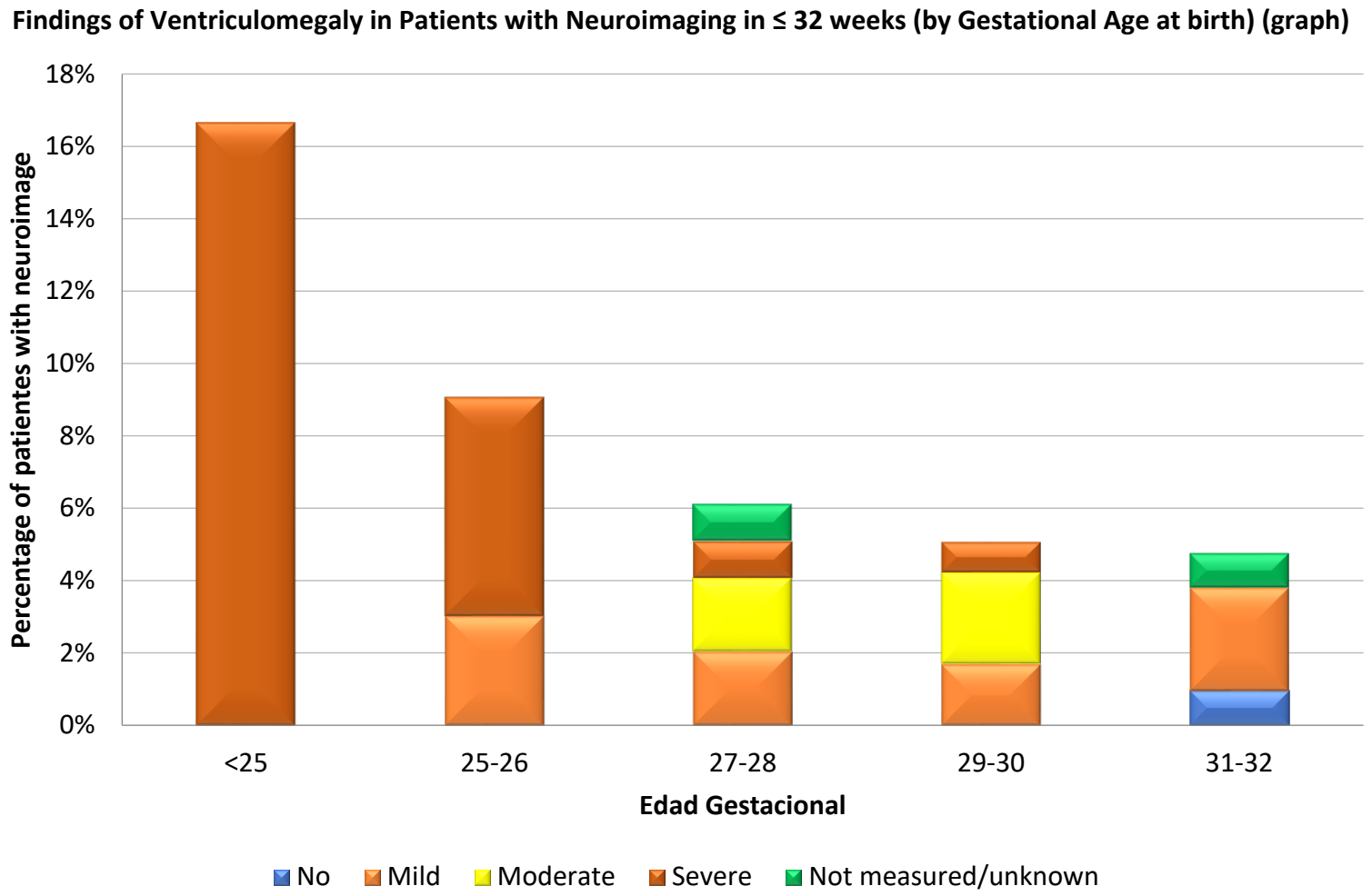
Gestational Age (weeks)			Total patients	Total Patients with Neuroimaging		Reported Normal	
<25	n	%	14	6	43%	2	33%
25-26	n	%	47	33	70%	15	45%
27-28	n	%	130	98	75%	67	68%
29-30	n	%	160	118	74%	94	80%
31-32	n	%	295	210	71%	177	84%
Total	n	%	646	465	72%	355	76%



Hemorrhage Findings in Germinal Matrix and Ventricles in ≤ 32 weeks (by Gestational Age at birth)

Gestational Age (weeks)			Patients with Neuroimaging	Hemorrhage in the Germinal Matrix				Intraventricular Hemorrhage			
				Present		Suspected		Present		Suspected	
<25	n	%	6	0	0%	3	50%	0	0%	3	50%
25-26	n	%	33	0	0%	13	39%	0	0%	3	9%
27-28	n	%	98	1	1%	18	18%	1	1%	11	11%
29-30	n	%	118	0	0%	17	14%	0	0%	12	10%
31-32	n	%	210	0	0%	18	9%	1	0%	11	5%
Total	n	%	465	1	1%	69	15%	0	0%	0	0%





Low gestational age deaths affect statistics.

Ventriculomegaly Findings in Patients with Neuroimaging in ≤ 32 weeks (by Gestational Age at birth) (table)

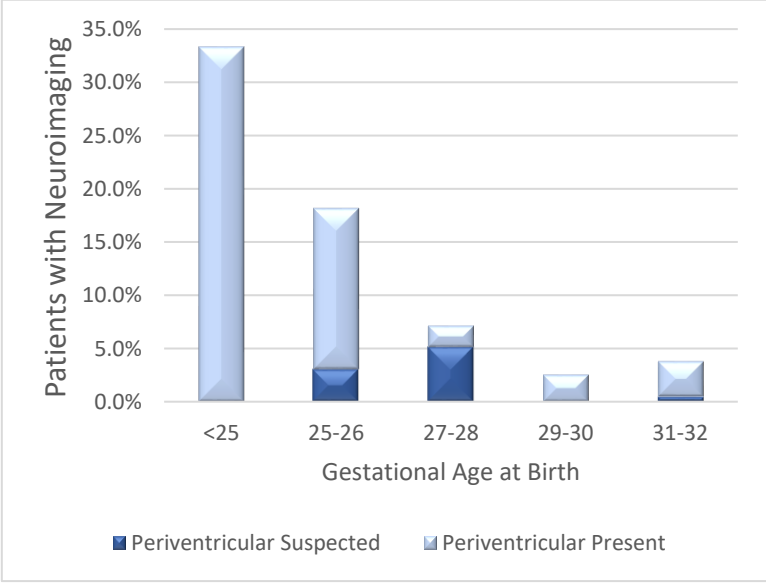
Gestational Age (weeks)			Patients with Neuroimaging	Ventriculomegaly									
				None		Mild		Moderate		Severe		Not measured	
<25	n	%	6	0	0%	0	0%	0	0%	1	17%	0	0%
25-26	n	%	33	0	0%	1	3%	0	0%	2	6%	0	0%
27-28	n	%	98	0	0%	2	2%	2	2%	1	1%	1	1%
29-30	n	%	118	0	0%	2	2%	3	3%	1	1%	0	0%
31-32	n	%	210	2	1%	6	3%	0	0%	0	0%	2	1%
Total	n	%	465	2	0%	11	2%	5	1%	5	1%	3	1%

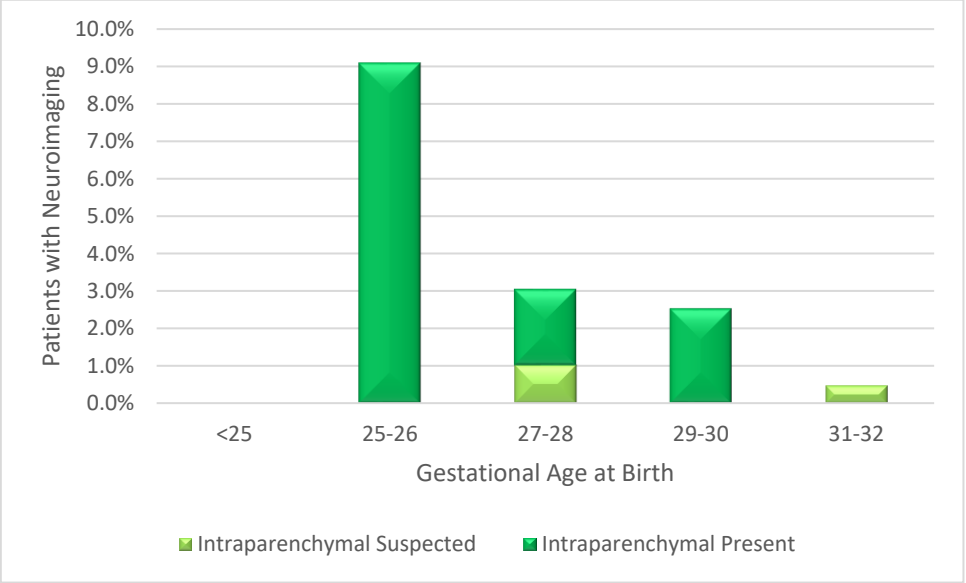
Comment: only patients with complete information were included.

PRESENTATION 16

Findings: periventricular and Intraparenchymal Hemorrhage in ≤ 32 weeks (by Gestational Age at birth) (table and graphic)

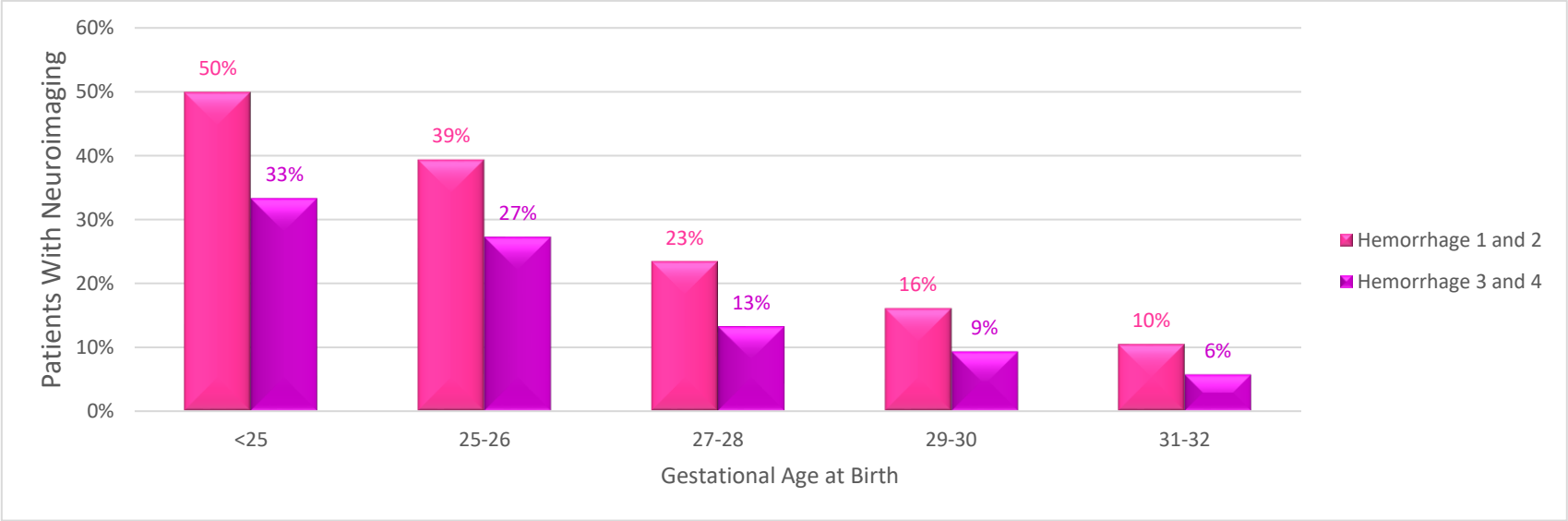
Gestational Age (weeks)			Patients with Neuroimaging	Periventricular Hemorrhage				Intraparenchymal Hemorrhage			
				Present		Suspected		Present		Suspected	
<25	n	%	6	0	0.0%	2	33.3%	0	0.0%	0	0.0%
25-26	n	%	33	1	3.0%	5	15.2%	0	0.0%	3	9.1%
27-28	n	%	98	5	5.1%	2	2.0%	1	1.0%	2	2.0%
29-30	n	%	118	0	0.0%	3	2.5%	0	0.0%	3	2.5%
31-32	n	%	210	1	0.5%	7	3.3%	1	0.5%	0	0.0%
Total	n	%	465	7	1.5%	19	4.1%	2	0.4%	8	1.7%





Hemorrhage Findings Grade 1 and 2 versus 3 and 4 in ≤ 32 weeks (by Gestational Age at birth)

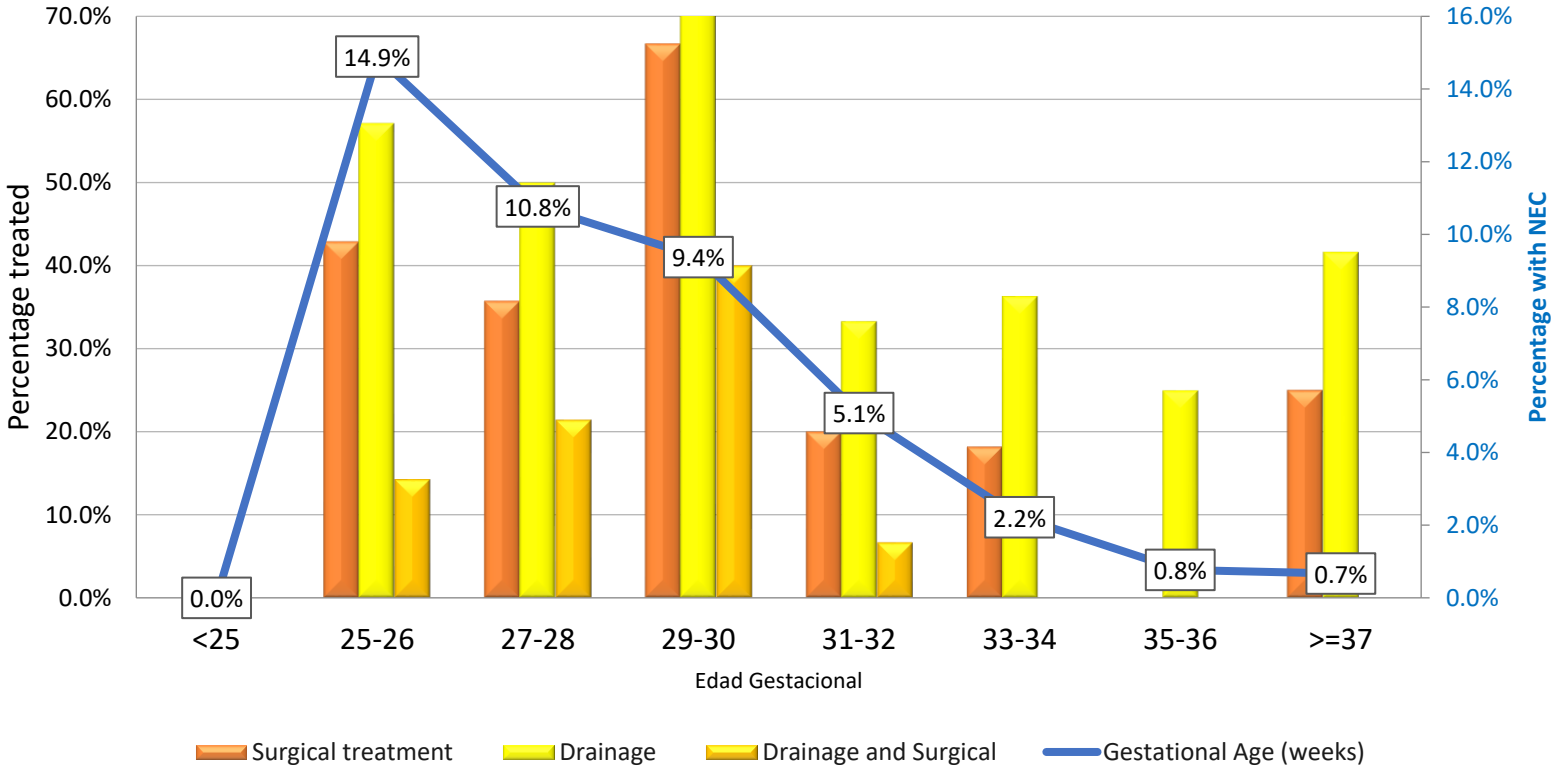
Gestational Age (weeks)			Patients With Neuroimaging	Hemorrhage 1y2		Hemorrhage 3y4	
<25	n	%	6	3	50%	2	33%
25-26	n	%	33	13	39%	9	27%
27-28	n	%	98	23	23%	13	13%
29-30	n	%	118	19	16%	11	9%
31-32	n	%	210	22	10%	12	6%
Total	n	%	465	80	17%	47	10%



Comment: only patients with complete information to whom image was taken were included. Grade 1 and 2 is defined when there is hemorrhage in the germinal matrix and/or ventricles, without intra or periventricular dilation or hemorrhage. Grade 3 and 4 when there were ventricular dilation or hemorrhage outside the ventricles.

PRESENTATION 17

NECROTIZING ENTEROCOLITIS (NEC) and Treatment Modalities (by Gestational Age at Birth) (graph)



Comment: For the Necrotizing Enterocolitis (NEC) analysis, only patients with complete data were included. The definition of NEC was used according to the following criteria: a) Pneumatosis (air within the intestinal wall) or portal/hepatic air diagnosed by radiographs or b) diagnosis of NEC during surgery or autopsy. Diagnosis of "suspected NEC" was not classified as NEC. The treatment percentages were calculated on infants diagnosed with NEC, that may be underestimated at low weights due to mortality.

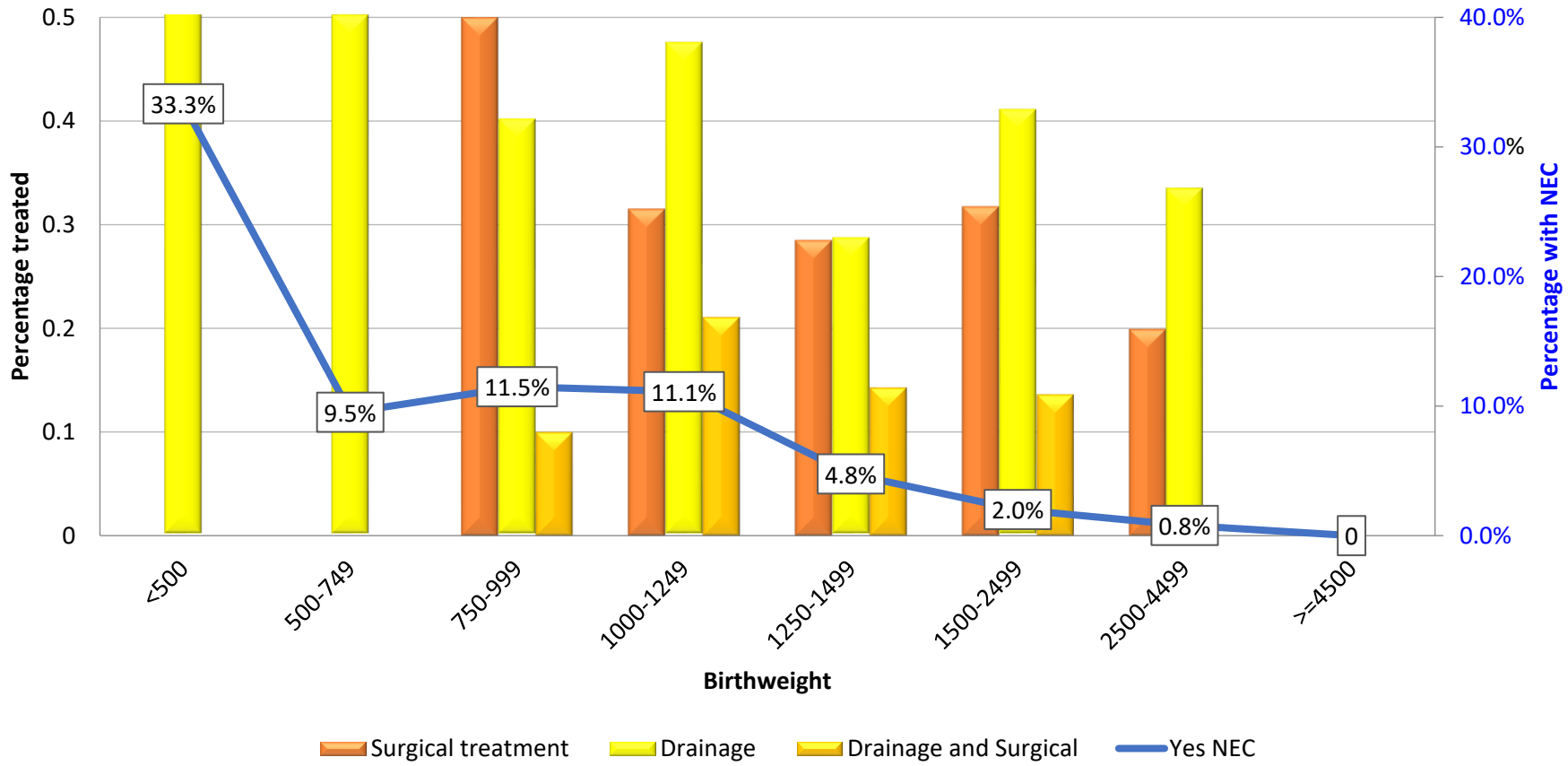
Necrotizing Enterocolitis and Treatment Modalities (by Gestational Age at Birth) (table)

Gestational Age (weeks)			Total No of Cases	Yes NEC		Treatment							
						Medical only		Surgical		Drainage		Drainage and Surgical	
<25	n	%	14	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
25-26	n	%	47	7	14.9%	3	42.9%	3	42.9%	4	57.1%	1	14.3%
27-28	n	%	130	14	10.8%	9	64.3%	5	35.7%	7	50.0%	3	21.4%
29-30	n	%	160	15	9.4%	2	13.3%	10	66.7%	11	73.3%	6	40.0%
31-32	n	%	295	15	5.1%	9	60.0%	3	20.0%	5	33.3%	1	6.7%
33-34	n	%	496	11	2.2%	5	45.5%	2	18.2%	4	36.4%	0	0.0%
35-36	n	%	520	4	0.8%	3	75.0%	0	0.0%	1	25.0%	0	0.0%
>=37	n	%	1794	12	0.7%	4	33.3%	3	25.0%	5	41.7%	0	0.0%
Total	n	%	3456	78	2%	35	45%	0	0%	0	0%	0	0%

Patents in the drainage and surgical group are also counted in the separate groups (Surgery or Drainage)

PRESENTATION 18

Necrotizing Enterocolitis and Treatment Modalities (by Birthweight) (graph)



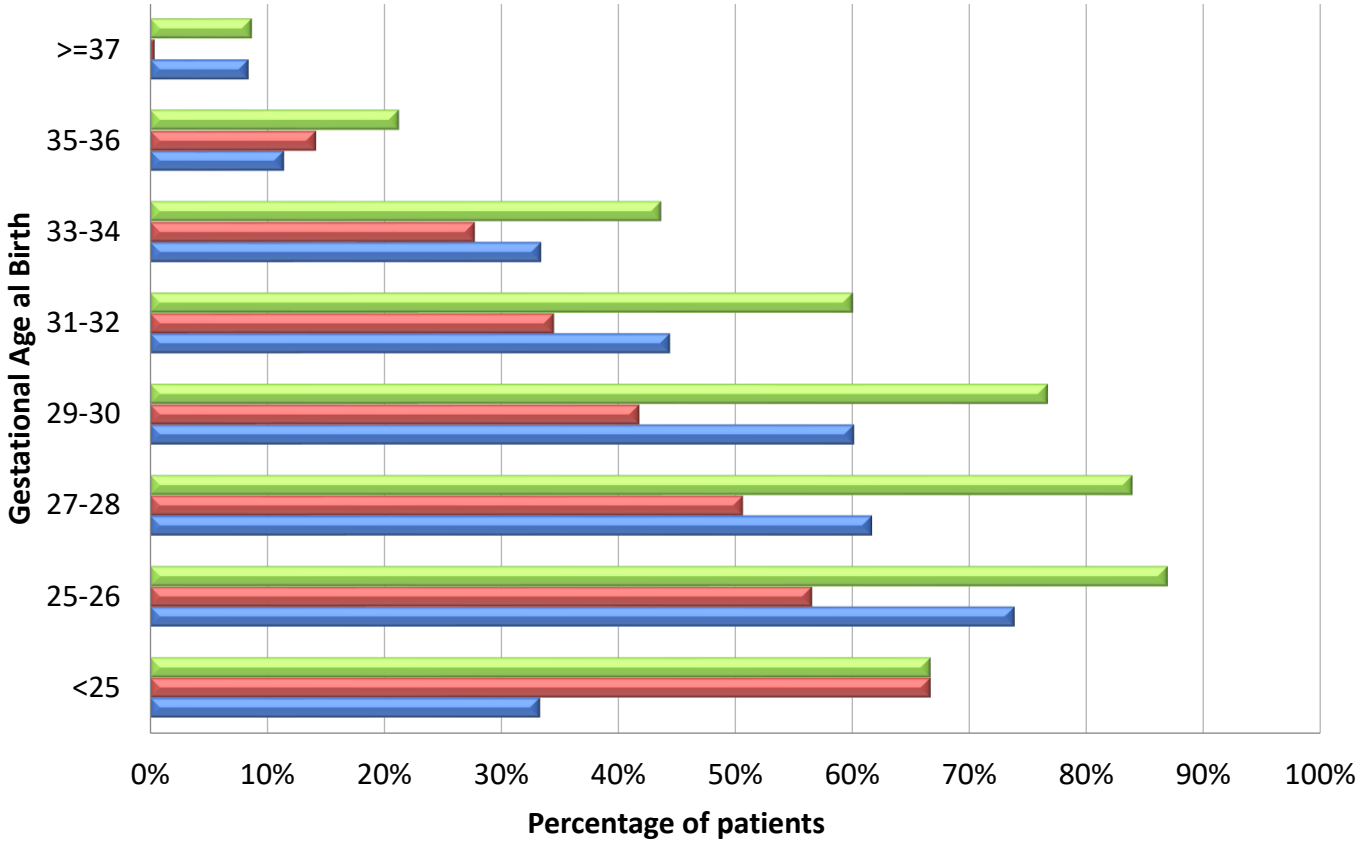
Necrotizing Enterocolitis and Treatment Modalities (by Birthweight) (table)

Birthweight (g)			Total No of Cases	Yes NEC		Treatment							
						Medical only		Surgical		Drainage		Drainage and Surgical	
<500	n	%	3	1	33.3%	0		0		1	100.0%	0	
500-749	n	%	42	4	9.5%	3	75.0%	0		2	50.0%	0	
750-999	n	%	87	10	11.5%	3	30.0%	5	50.0%	4	40.0%	1	10.0%
1000-1249	n	%	171	19	11.1%	9	47.4%	6	31.6%	9	47.4%	4	21.1%
1250-1499	n	%	147	7	4.8%	4	57.1%	2	28.6%	2	28.6%	1	14.3%
1500-2499	n	%	1091	22	2.0%	9	40.9%	7	31.8%	9	40.9%	3	13.6%
2500-4499	n	%	1904	15	0.8%	7	46.7%	3	20.0%	5	33.3%	0	
>=4500	n	%	11	0		0		0		0		0	
Total	n	%	3456	78	2.3%	35	1.0%	23	0.7%	32	0.9%	9	0.3%

Comment: For the Necrotizing Enterocolitis (NEC) analysis, only patients with complete data were included. The definition of NEC was used according to the following criteria: a) Pneumatosis (air within the intestinal wall) or portal/hepatic air diagnosed by radiographs or b) diagnosis of NEC during surgery or autopsy. Diagnosis of "suspected NEC" was not classified as NEC. The treatment percentages were calculated on infants diagnosed with NEC, that may be underestimated at low weights due to mortality.

PRESENTATION 19

Supplemental Oxygen Requirement (graph)



Remember the different above the sea level of some of the units. w: weeks. PMA: postmenstrual age.

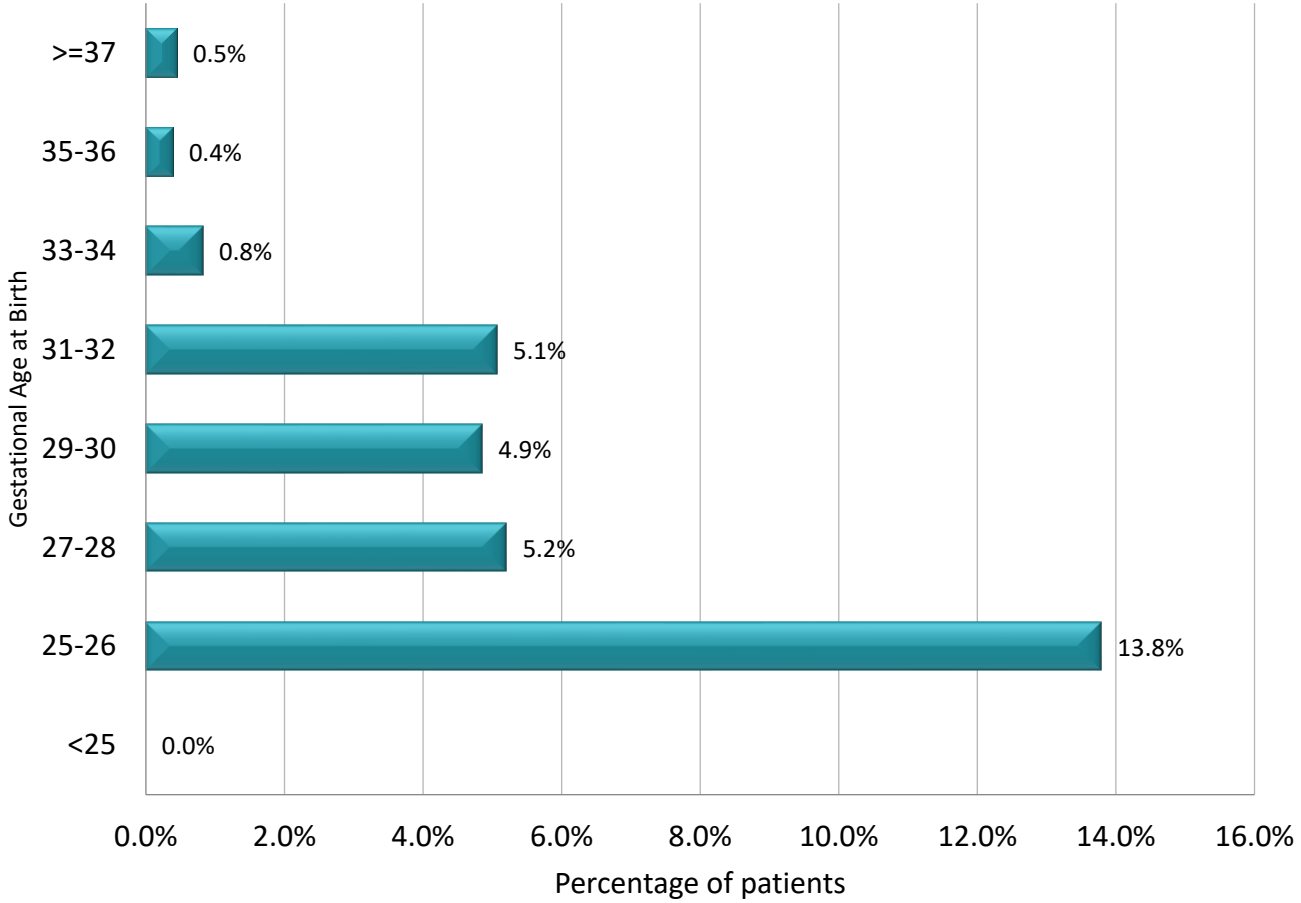
Supplemental Oxygen Requirement (table)

Gestational Age (weeks)			Total Number of Patients	Patients < 36 weeks	Number of Patients ≥ 36 weeks an t discharge/transfer	Oxygen use at discharge in ≥ 36 weeks at discharge/transfer		Oxygen use at 36 weeks PMA in ≥ 36 weeks at discharge/transfer		Oxygen use at 36 weeks PMA in ≥ 36 weeks at discharge/transfer OR at 36 weeks PMA	
<25	n	%	14	11	3	1	33%	2	67%	2	67%
25-26	n	%	47	24	23	17	74%	13	57%	20	87%
27-28	n	%	130	49	81	50	62%	41	51%	68	84%
29-30	n	%	160	57	103	62	60%	43	42%	79	77%
31-32	n	%	295	115	180	80	44%	62	34%	108	60%
33-34	n	%	496	182	314	105	33%	87	28%	137	44%
35-36	n	%	520	40	480	55	11%	68	14%	102	21%
>=37	n	%	1794	0	1794	151	8%	7	0%	156	9%
Total	n	%	3456	478	2978	521	17%	323	11%	672	23%

Comment: only patients with complete information were included. w: weeks. PMA: postmenstrual age. The percentage was calculated extracting from total number of patients the deceased or remitted or < 36 weeks at discharge.

PRESENTATION 20

Any Respiratory Support Requirement (by Gestational Age) in infants at discharge/transfer in patients that did not die. (graph)



Dead were excluded.

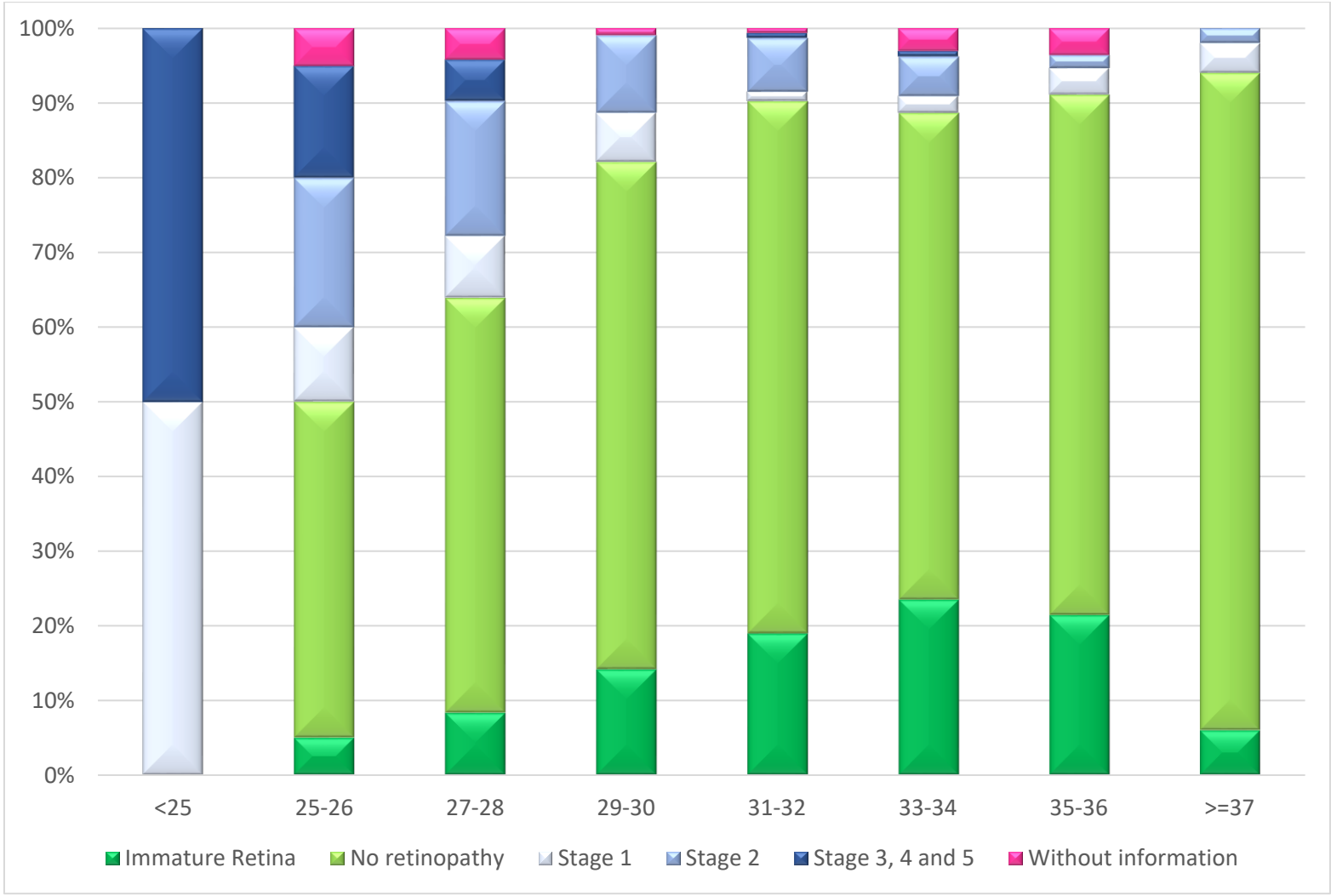
Any Respiratory Support (by Gestational Age) in infants that did not die (table)

Gestational Age (weeks)			Total Number of Patients that did not die	Respiratory support at discharge	
<25	n	%	2	0	0.0%
25-26	n	%	29	4	13.8%
27-28	n	%	96	5	5.2%
29-30	n	%	144	7	4.9%
31-32	n	%	276	14	5.1%
33-34	n	%	483	4	0.8%
35-36	n	%	509	2	0.4%
>=37	n	%	1770	8	0.5%
Total	n	%	3309	44	1.3%

Comment: For the analysis of respiratory support received at discharge, only patients who had complete data were included. Respiratory support is defined as CPAP or assisted ventilation, it does not include only oxygen or low flow nasal cannula for its administration. Estimates of the percentages of respiratory support received at discharge over the number of infants with known results that did not die.

PRESENTATION 21

Incidence of Retinopathy of Prematurity (by Gestational Age) (graph)



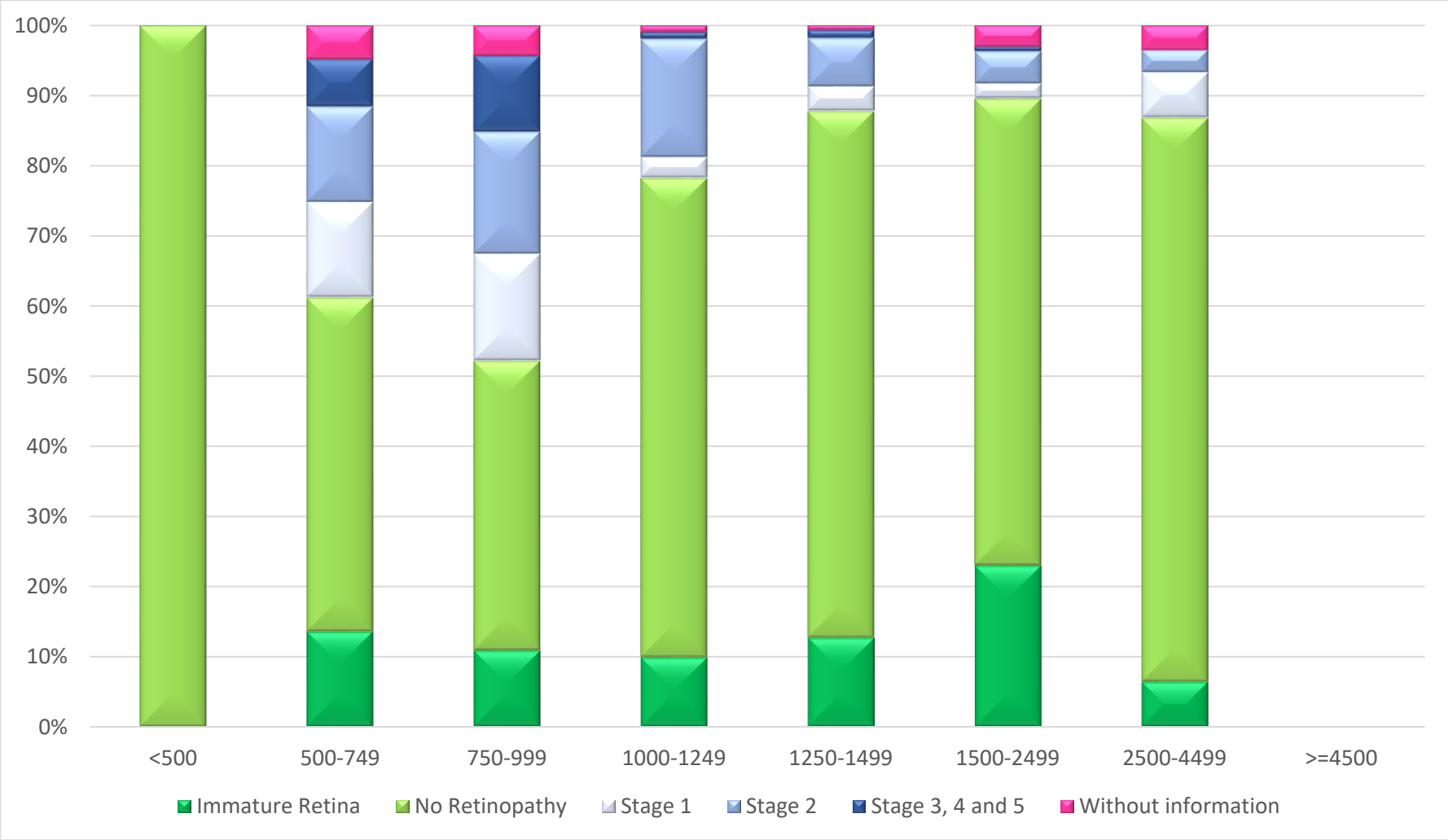
Incidence of Retinopathy of Prematurity (by Gestational Age) (table)

Gestational Age weeks			Number of Patients	Number of infants with Screening Done		Immature Retina		Retinopathy of Prematurity									
								No		Stage 1		Stage 2		Stage 3, 4 and 5		Without information	
<25	n	%	14	2	14%	0	0%	0	0%	1	50%	0	0%	1	50%	0	0.0%
25-26	n	%	47	20	43%	1	5%	9	45%	2	10%	4	20%	3	15%	1	5.0%
27-28	n	%	130	72	55%	6	8%	40	56%	6	8%	13	18%	4	6%	3	4.2%
29-30	n	%	160	106	66%	15	14%	72	68%	7	7%	11	10%	0	0%	1	0.9%
31-32	n	%	295	153	52%	29	19%	109	71%	2	1%	11	7%	1	1%	1	0.7%
33-34	n	%	496	132	27%	31	23%	86	65%	3	2%	7	5%	1	1%	4	3.0%
35-36	n	%	520	56	11%	12	21%	39	70%	2	4%	1	2%	0	0%	2	3.6%
>=37	n	%	1794	50	3%	3	6%	44	88%	2	4%	1	2%	0	0%	0	0.0%
Total	n	%	3456	591	17%	97	16%	399	68%	25	4%	48	8%	10	2%	12	2.0%

Comment: For the Retinopathy of Prematurity (ROP) analysis, only patients who had complete data were included. The calculation of ROP percentages was made over the number of infants with screening done. The difference between immature retina and no retinopathy is only definition.

PRESENTATION 22

Incidence of Retinopathy of Prematurity by Birthweight (graph)



Retinopathy of Prematurity by Birthweight in < 1500 gr (table)

Birthweight (g)			Number of Patients	Number of infants with Screening Done		Immature Retina		Retinopathy of Prematurity									
								No		Stage 1		Stage 2		Stage 3, 4 and 5		Without information	
<500	n	%	3	1	33%	0	0%	1	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
500-749	n	%	42	14	33%	2	14%	7	50.0%	2	14.3%	2	14.3%	1	7.1%	0	0.0%
750-999	n	%	87	47	54%	5	11%	19	40.4%	7	14.9%	8	17.0%	5	10.6%	3	6.4%
1000-1249	n	%	171	102	60%	10	10%	69	67.6%	3	2.9%	17	16.7%	1	1.0%	2	2.0%
1250-1499	n	%	147	86	59%	11	13%	65	75.6%	3	3.5%	6	7.0%	1	1.2%	0	0.0%
1500-2499	n	%	1091	280	26%	65	23%	188	67.1%	6	2.1%	13	4.6%	2	0.7%	6	2.1%
2500-4499	n	%	1904	61	3%	4	7%	50	82.0%	4	6.6%	2	3.3%	0	0.0%	1	1.6%
>=4500	n	%	11	0	0%	0	0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	n	%	3456	591	17%	97	16%	399	67.5%	25	4.2%	48	8.1%	10	1.7%	12	2.0%

Comment: For the Retinopathy of Prematurity (ROP) analysis, only patients who had complete data were included. The calculation of ROP percentages was made over the number of infants with screening done. The difference between immature retina and no retinopathy is only definition.

PRESENTATION 23

Therapy Cryo/Laser /Anti-VEGF in infants with Retinopathy of Prematurity (by Gestational Age) (table)

Gestational Age (weeks)			Number of Admissions	Number of infants with Screening Done		ROP Therapy		ROP Therapy							
								Cryo		Laser		Anti- VEGF		Both laser and Anti-VEGF
<25	n	%	14	2	14%	1	50%	0	0%	1	100%	0	0%	0
25-26	n	%	47	20	43%	6	30%	0	0%	3	50%	3	50%	0
27-28	n	%	130	72	55%	5	7%	0	0%	3	60%	2	40%	0
29-30	n	%	160	106	66%	2	2%	0	0%	1	50%	1	50%	0
31-32	n	%	295	153	52%	1	1%	0	0%	0	0%	1	100%	0
33-34	n	%	496	132	27%	0	0%	0	0%	0	0%	0	0%	0
35-36	n	%	520	56	11%	2	4%	1	50%	0	0%	1	50%	0
>=37	n	%	1794	50	3%	0	0%	0	0%	0	0%	0	0%	0
Total	n	%	3456	591	17%	17	3%	1	6%	8	47%	8	47%	0

Comment: For the analysis of ROP therapy, only patients who had screening done were included and percentage was calculated over the total number of patients treated. Due to the low number of patients, caution is required interpret the percentages.

PRESENTATION 24

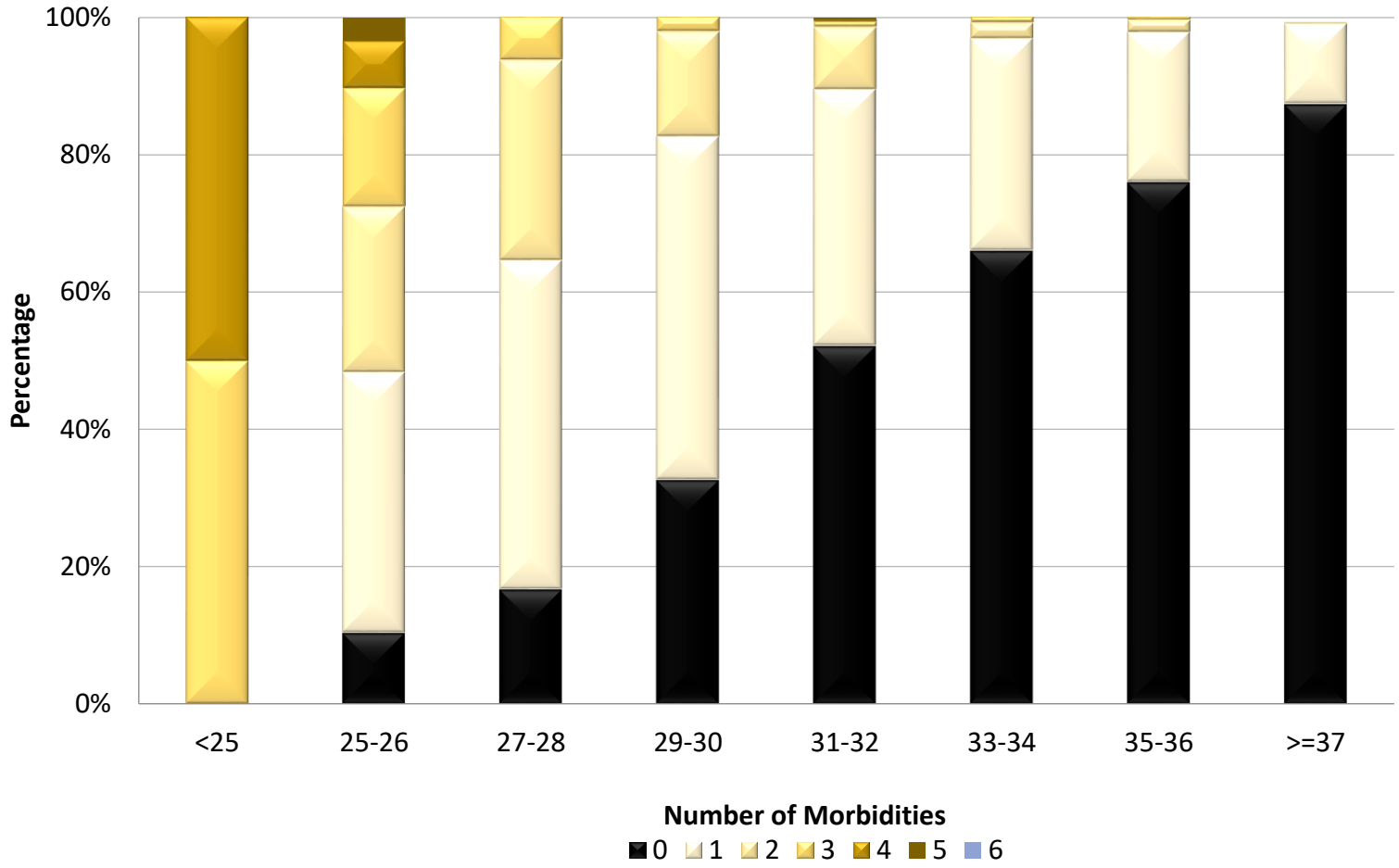
Therapy Cryo/Laser /Anti-VEGF in infants with Retinopathy of Prematurity (by Birthweight) (table)

BIRTHWEIGHT (gr)		Number of Admissions	Number of infants with Screening Done		ROP Therapy		ROP Therapy							
							Cryo		Laser		Anti- VEGF		Both laser and Anti-VEGF
<500	n %	3	1	33%	0	0.0%	0	0%	0	0%	0	0%	0
500-749	n %	42	14	33%	3	21.4%	0	0%	2	67%	1	33%	0
750-999	n %	87	47	54%	6	12.8%	0	0%	2	33%	4	67%	0
1000-1249	n %	171	102	60%	4	3.9%	0	0%	4	100%	1	25%	0
1250-1499	n %	147	86	59%	1	1.2%	0	0%	0	0%	1	100%	0
1500-2499	n %	1091	280	26%	1	0.4%	0	0%	0	0%	1	100%	0
2500-4499	n %	1904	61	3%	2	3.3%	1	50%	0	0%	0	0%	0
>=4500	n %	11	0	0%	0	0.0%	0	0%	0	0%	0	0%	0
Total	n %	3456	591	17%	17	3%	1	6%	8	47%	8	47%	0

Comment: For the analysis of ROP therapy, only patients who had screening done were included and percentage was calculated over the total number of patients treated. Due to the low number of patients in some groups, caution is required interpret the percentages.

PRESENTATION 25

Significant Morbidities by Gestational Age (Six Morbidities) (graph)



Significant Morbidities by Gestational Age in Patients that did not Die (Six Morbidities) (table)

Gestational Age (weeks)		Number de Patients that did not Die	Number of Morbidities													
			0		1		2		3		4		5		6	
<25	n %	2	0	0%	0	0%	0	0%	1	50%	1	50%	0	0%	0	
25-26	n %	29	3	10%	11	38%	7	24%	5	17%	2	7%	1	3.4%	0	
27-28	n %	96	16	17%	46	48%	28	29%	6	6%	0	0%	0	0%	0	
29-30	n %	144	47	33%	72	50%	22	15%	3	2%	0	0%	0	0%	0	
31-32	n %	276	144	52%	103	37%	25	9%	2	1%	1	0.4%	1	0.4%	0	
33-34	n %	483	319	66%	149	31%	11	2%	4	1%	0	0%	0	0%	0	
35-36	n %	509	387	76%	111	22%	9	2%	2	0.4%	0	0%	0	0%	0	
>=37	n %	1770	1547	87%	206	12%	0	0%	1	0.1%	1	0.1%	0	0%	0	
Total	n %	3309	2463	74%	698	21%	102	3%	24	1%	5	0.2%	2	0.1%	0	

The six morbidities included in the analysis are:

1. Ventriculomegaly or Periventricular Leukomalacia or Intraparenchymal Hemorrhage
2. ROP ≥ grade 3
3. O2 use at 36 weeks PMA or at discharge.
4. Early or late infection confirmed by the presence of Bacteria or Fungi in Blood or CSF.
5. NEC grade II or III
6. PDA that required ligation.

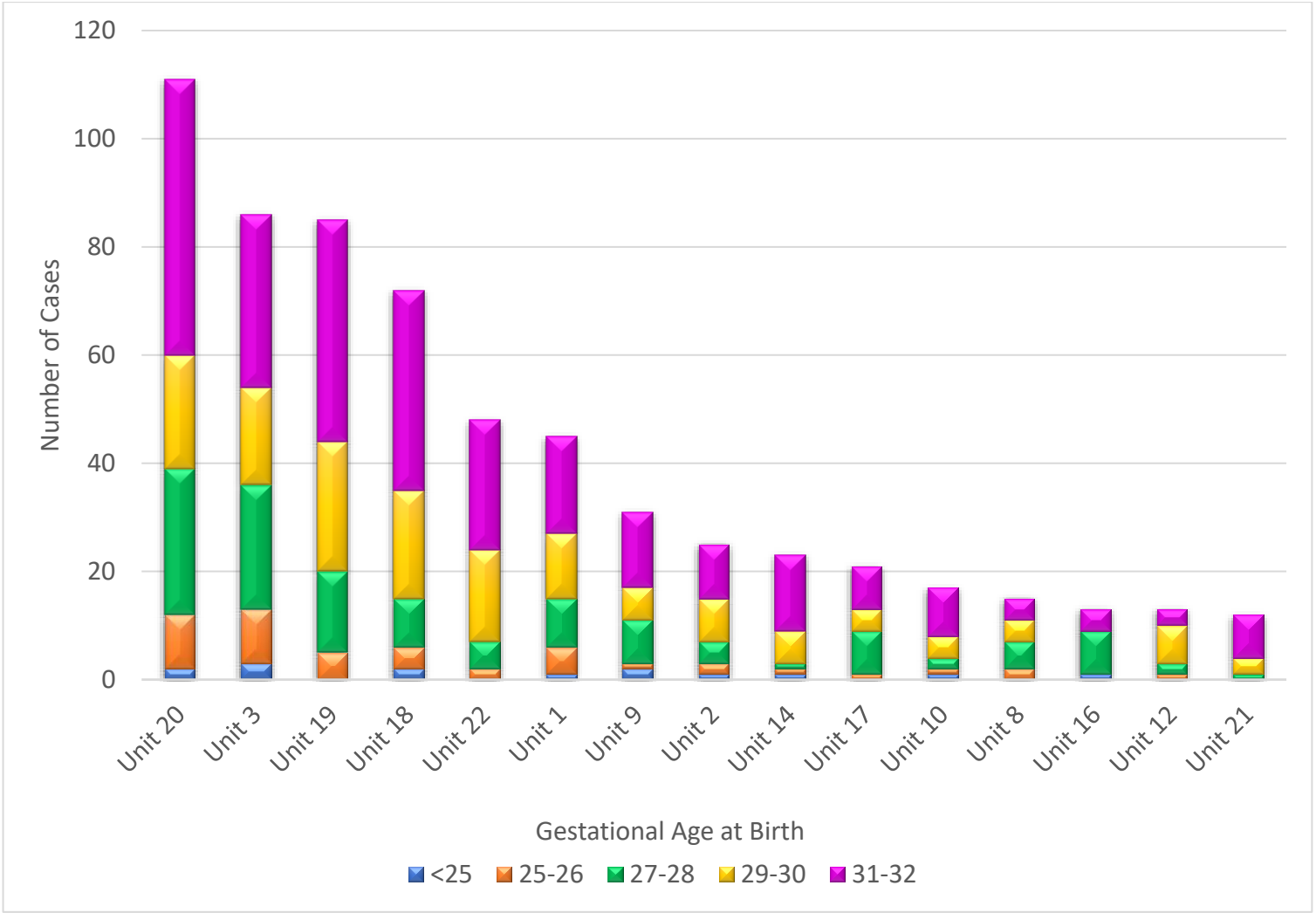
Comment: Patients with complete data were included for the analysis. The calculation of the frequency of morbidities was made on the Number of Infants who went home directly from the NICUs and who had complete data on the 6 morbidities.

C. COMPARISONS BETWEEN SITES.

COMPARISONS BETWEEN SITES - POPULATION

PRESENTATION 26

Number of Patients ≤ 32 weeks at birth by Gestational Age and Specific Unit ((graph arranged in descending order)



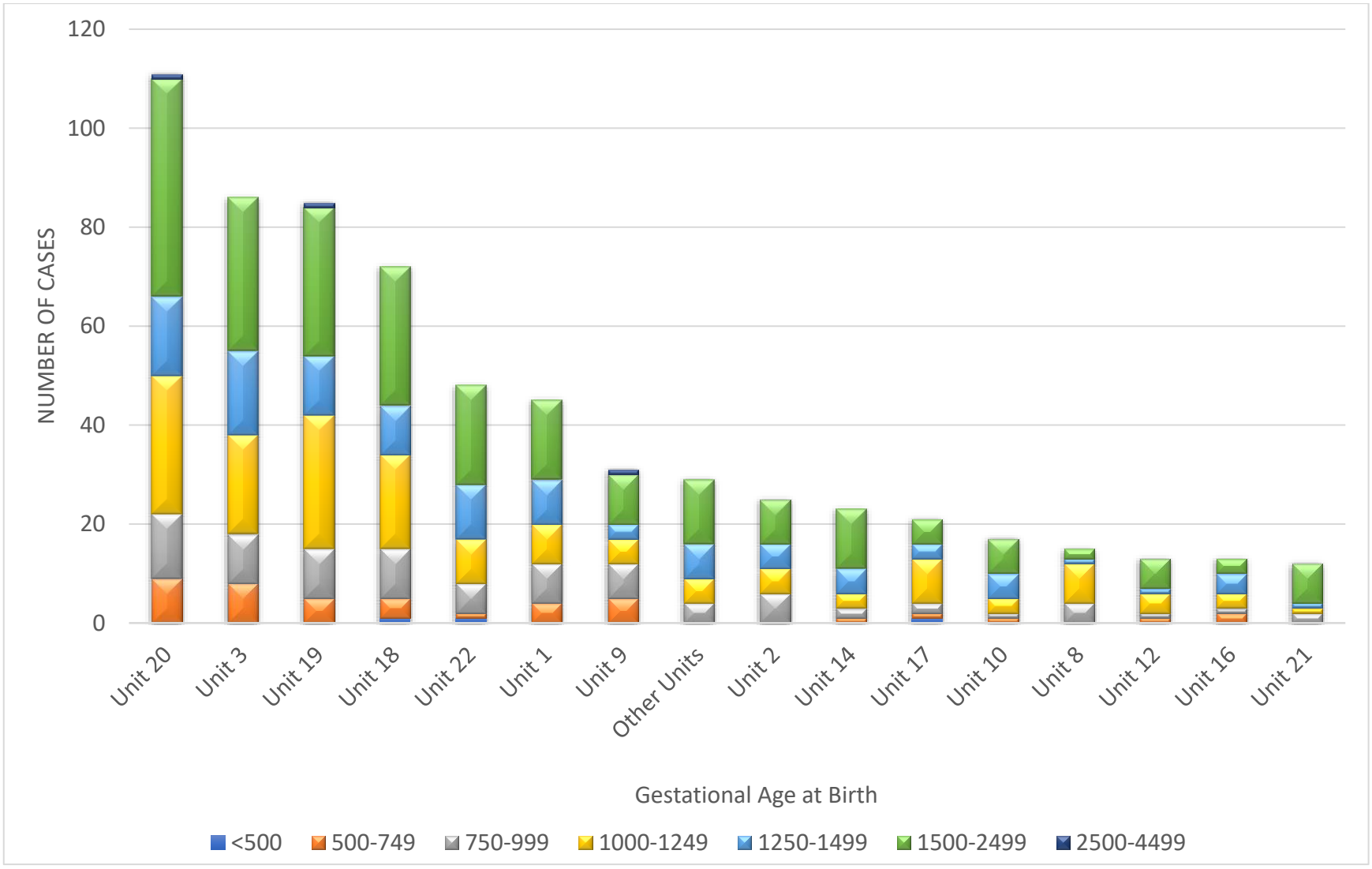
Number of Patients ≤ 32 weeks at birth by Gestational Age and Specific Unit. (Table)

UNITS	Gestational Age					
	<25	25-26	27-28	29-30	31-32	Total
Unit 20	2	10	27	21	51	111
Unit 3	3	10	23	18	32	86
Unit 19	0	5	15	24	41	85
Unit 18	2	4	9	20	37	72
Unit 22	0	2	5	17	24	48
Unit 1	1	5	9	12	18	45
Unit 9	2	1	8	6	14	31
Unit 2	1	2	4	8	10	25
Unit 14	1	1	1	6	14	23
Unit 17	0	1	8	4	8	21
Unit 10	1	1	2	4	9	17
Unit 8	0	2	5	4	4	15
Unit 16	1	0	8	0	4	13
Unit 12	0	1	2	7	3	13
Unit 21	0	0	1	3	8	12
Total	14	45	127	154	277	617

Comment: The number of patients by Gestational Age at birth excluded units with less than 10 cases. It is also only units with complete data and without readmissions.

PRESENTATION 27

Number of Patients ≤ 32 weeks at birth by Birthweight and Specific Unit (graph arranged in descending order)



Number of Patients ≤ 32 weeks by Birthweight and Specific Unit (table)

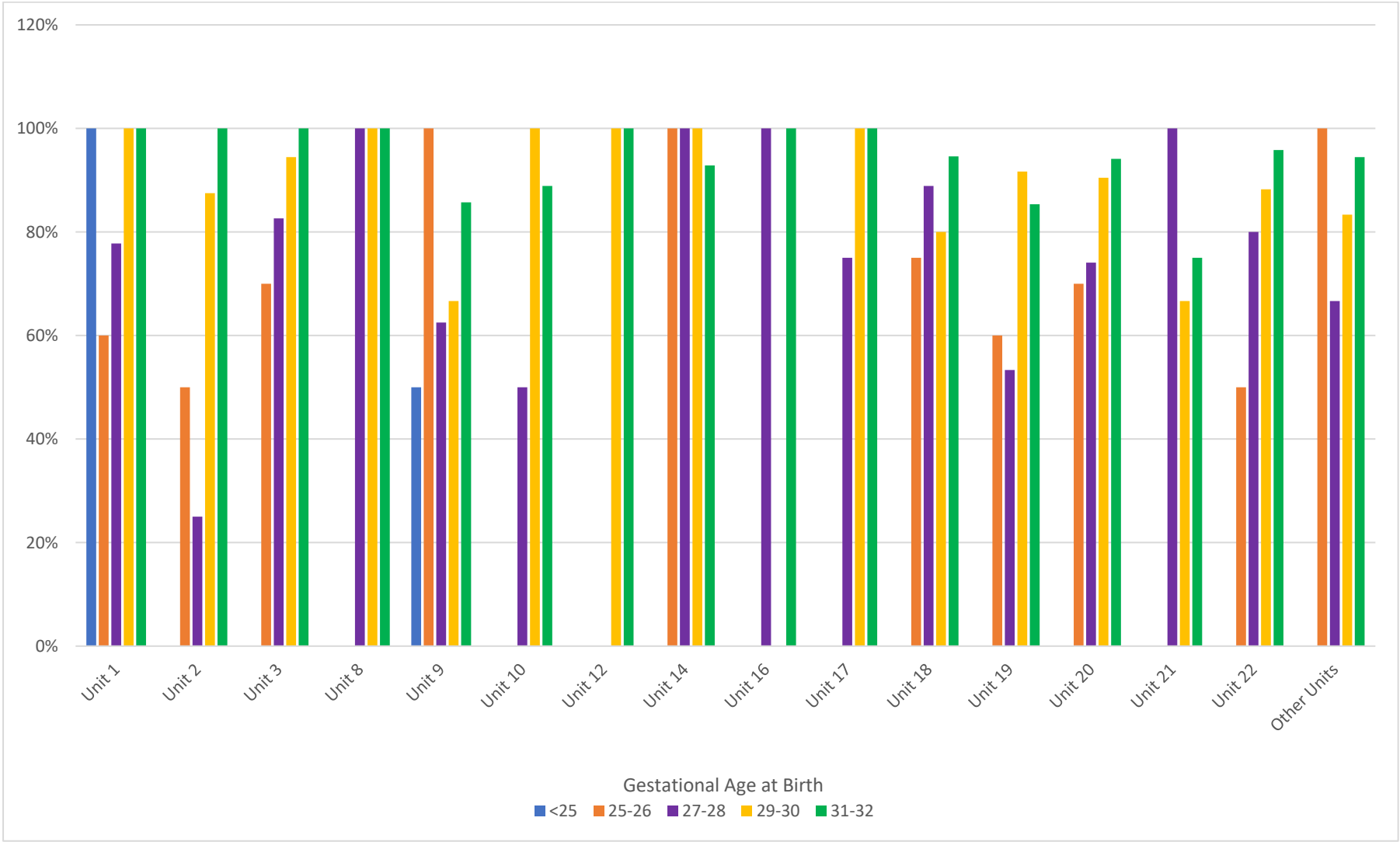
UNITS	BIRTHWEIGHT							
	<500	500-749	750-999	1000-1249	1250-1499	1500-2499	2500-4499	Total
Unit 20	0	9	13	28	16	44	1	111
Unit 3	0	8	10	20	17	31	0	86
Unit 19	0	5	10	27	12	30	1	85
Unit 18	1	4	10	19	10	28	0	72
Unit 22	1	1	6	9	11	20	0	48
Unit 1	0	4	8	8	9	16	0	45
Unit 9	0	5	7	5	3	10	1	31
Other Units	0	0	4	5	7	13	0	29
Unit 2	0	0	6	5	5	9	0	25
Unit 14	0	1	2	3	5	12	0	23
Unit 17	1	1	2	9	3	5	0	21
Unit 10	0	1	1	3	5	7	0	17
Unit 8	0	0	4	8	1	2	0	15
Unit 12	0	1	1	4	1	6	0	13
Unit 16	0	2	1	3	4	3	0	13
Unit 21	0	0	2	1	1	8	0	12
Total	3	42	87	157	110	244	3	646

Comment: The number of patients by birthweight included patients ≤ 32 weeks at birth. No readmissions were included.

COMPARISONS BETWEEN UNITS - SURVIVAL/MORTALITY

PRESENTATION 28

CRUDE Frequency of Survival by Gestational Age and Unit in ≤ 32 weeks at Birth. (Graph)



CRUDE Frequency of Survival by Gestational Age and Unit in ≤ 32 weeks at Birth (Table).

UNITS			<25	25-26	27-28	29-30	31-32	Total
Unit 1	Number of Survivors	n	1	3	7	12	18	41
	Number of deaths	n	0	2	2	0	0	4
	Total	n	1	5	9	12	18	45
	% de Survival	%	100%	60%	78%	100%	100%	91%
Unit 2	Number of Survivors	n	0	1	1	7	10	19
	Number of deaths	n	1	1	3	1	0	6
	Total	n	1	2	4	8	10	25
	% de Survival	%	0%	50%	25%	88%	100%	76%
Unit 3	Number of Survivors	n	0	7	19	17	32	75
	Number of deaths	n	3	3	4	1	0	11
	Total	n	3	10	23	18	32	86
	% de Survival	%	0%	70%	83%	94%	100%	87%
Unit 8	Number of Survivors	n	0	0	5	4	4	13
	Number of deaths	n	0	2	0	0	0	2
	Total	n	0	2	5	4	4	15
	% de Survival	%		0%	100%	100%	100%	87%
Unit 9	Number of Survivors	n	1	1	5	4	12	23
	Number of deaths	n	1	0	3	2	2	8
	Total	n	2	1	8	6	14	31
	% de Survival	%	50%	100%	63%	67%	86%	74%
Unit 10	Number of Survivors	n	0	0	1	4	8	13
	Number of deaths	n	1	1	1	0	1	4
	Total	n	1	1	2	4	9	17
	% de Survival	%	0%	0%	50%	100%	89%	76%
Unit 12	Number of Survivors	n	0	0	0	7	3	10
	Number of deaths	n	0	1	2	0	0	3
	Total	n	0	1	2	7	3	13
	% de Survival	%		0%	0%	100%	100%	77%

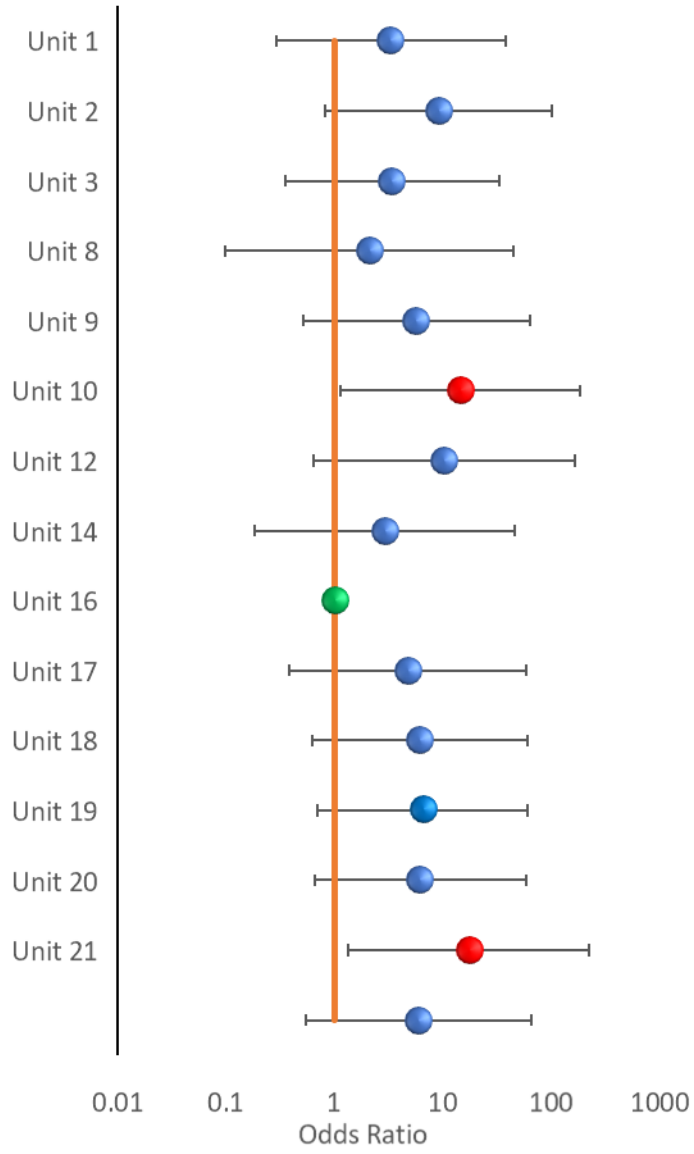
UNITS			<25	25-26	27-28	29-30	31-32	Total
Unit 14	Number of Survivors	n	0	1	1	6	13	21
	Number of deaths	n	1	0	0	0	1	2
	Total	n	1	1	1	6	14	23
	% de Survival	%	0%	100%	100%	100%	93%	91%
Unit 16	Number of Survivors	n	0	0	8	0	4	12
	Number of deaths	n	1	0	0	0	0	1
	Total	n	1	0	8	0	4	13
	% de Survival	%	0%		100%		100%	92%
Unit 17	Number of Survivors	n	0	0	6	4	8	18
	Number of deaths	n	0	1	2	0	0	3
	Total	n	0	1	8	4	8	21
	% de Survival	%		0%	75%	100%	100%	86%
Unit 18	Number of Survivors	n	0	3	8	16	35	62
	Number of deaths	n	2	1	1	4	2	10
	Total	n	2	4	9	20	37	72
	% de Survival	%	0%	75%	89%	80%	95%	86%
Unit 19	Number of Survivors	n	0	3	8	22	35	68
	Number of deaths	n	0	2	7	2	6	17
	Total	n	0	5	15	24	41	85
	% de Survival	%		60%	53%	92%	85%	80%
Unit 20	Number of Survivors	n	0	7	20	19	48	94
	Number of deaths	n	2	3	7	2	3	17
	Total	n	2	10	27	21	51	111
	% de Survival	%	0%	70%	74%	90%	94%	85%
Unit 21	Number of Survivors	n	0	0	1	2	6	9
	Number of deaths	n	0	0	0	1	2	3
	Total	n	0	0	1	3	8	12
	% de Survival	%			100%	67%	75%	75%

UNITS			<25	25-26	27-28	29-30	31-32	Total
Unit 22	Number of Survivors	n	0	1	4	15	23	43
	Number of deaths	n	0	1	1	2	1	5
	Total	n	0	2	5	17	24	48
	% de Survival	%		50%	80%	88%	96%	90%
TOTAL	Number of Survivors	n	2	27	94	139	259	521
	Number of deaths	n	12	18	33	15	18	96
	Total	n	14	45	127	154	277	617
	% de Survival	%	14%	60%	74%	90%	94%	84%

Comment: For the analysis of survival by Gestational Age, only Patients who had complete data were included. Deaths of infants in the delivery room were excluded. Interpretation of these data should be done with caution because the few number of patients at low gestational ages.

PRESENTATION 29

Odd Ratio (Adjusted by SNAPEPE II and Gestational Age) for mortality by unit in ≤ 32 weeks Gestational Age (graph with log scale)



Unit 16 reference in green chosen due low incidence of mortality and adequate number of infants. Interpret with caution the units with few infants and large intervals. Statistically significant difference was found in units in red.

Odd Ratio (Adjusted by SNAPEPE II and Gestational Age) for mortality by unit in ≤ 32 weeks Gestational Age (table)

UNITS	CASES	OR	p Value	CI 95%
Unit 1	45	3.3	0.331	0.3 - 37.6
Unit 2	25	9.2	0.070	0.8 - 102.5
Unit 3	86	3.4	0.293	0.3 - 33.0
Unit 8	15	2.1	0.635	0.1 - 45.3
Unit 9	31	5.7	0.157	0.5 - 64.3
Unit 10	17	14.6	**0.039**	1.1 - 185.6
Unit 12	13	10.3	0.099	0.6 - 166.6
Unit 14	23	2.9	0.445	0.2 - 46.5
Unit 16	13	1.0	ref	
Unit 17	21	4.8	0.222	0.4 - 58.6
Unit 18	72	6.1	0.121	0.6 - 60.3
Unit 19	85	6.5	0.101	0.7 - 60.9
Unit 20	111	6.2	0.112	0.7 - 59.4
Unit 21	12	17.4	**0.029**	1.3 - 225.0
Unit 22	48	6.0	0.143	0.5 - 65.7
Reference	UNIT 19			

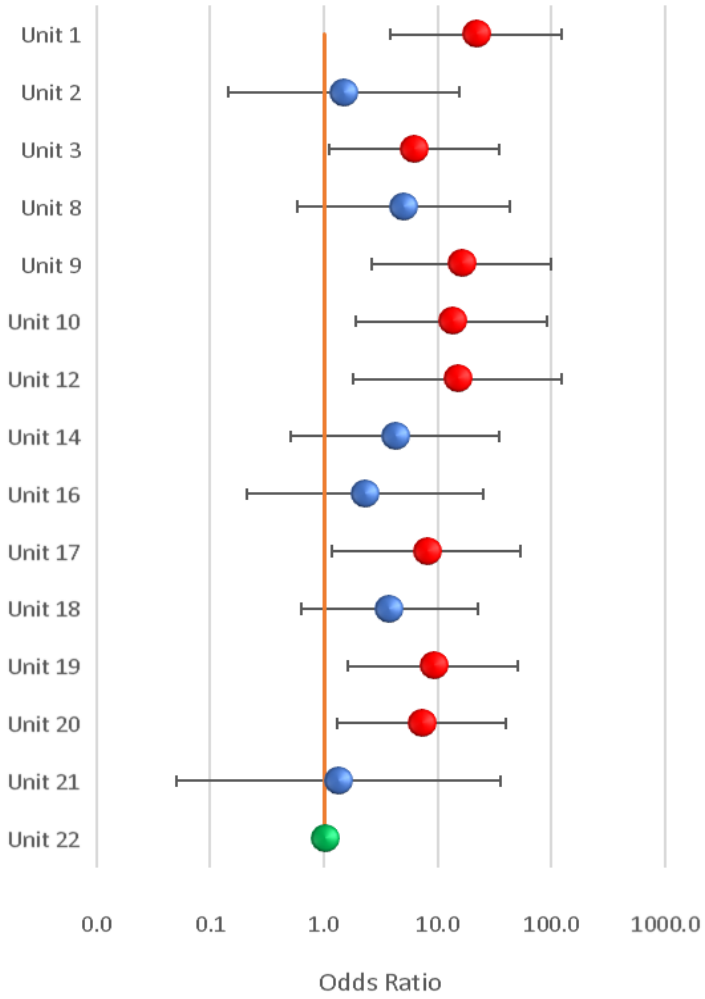
Comment: A logistic regression with adjustment by SNAPEPE II and Gestational Age was performed. The maximum likelihood estimation method proposed by David Firth (Firthlogit) for the low frequency of events was used. The low frequency may explain the imprecision of the estimates for some of the units. Additionally, the value of p was calculated to assess the statistical significance of the results of 0.05.

Participating units included all patients with complete discharge data who died. Those who were transferred were included. No readmissions were included. Unit 19 was used as reference for the large number of cases. No statistically significant difference was found.

COMPARISON BY LOCATIONS, MORBIDITIES AND ADJUSTED RISK ANALYSIS

PRESENTATION 30

Odds Ratio in Late Onset Sepsis in ≤ 32w Gestational Age Adjusted by SNAPEPE II and Gestational Age (Comparison by UNITS) (graph with log scale)



In red the units with significant difference, in green the referent unit 22 chosen for the large number of cases and lowest infection. Interpretation of some of the data should be done with caution because CI are large.

Odds Ratio in Late Onset Sepsis in less ≤ 32w Gestational Age Adjusted by SNAPEPE II and Gestational Age (Comparison by UNITS) (table)

UNITS	CASES	OR	p Value	CI 95%		
Unit 1	45	21.7	**0.001**	3.8	-	123.8
Unit 2	25	1.5	0.744	0.1	-	15.3
Unit 3	86	6.2	**0.038**	1.1	-	34.7
Unit 8	15	5.0	0.143	0.6	-	43.1
Unit 9	31	16.2	**0.003**	2.6	-	99.5
Unit 10	17	13.3	**0.009**	1.9	-	92.9
Unit 12	13	14.9	**0.012**	1.8	-	123.4
Unit 14	23	4.2	0.180	0.5	-	34.9
Unit 16	13	2.3	0.491	0.2	-	25.3
Unit 17	21	8.0	**0.034**	1.2	-	54.0
Unit 18	72	3.8	0.146	0.6	-	22.5
Unit 19	85	9.1	**0.012**	1.6	-	50.6
Unit 20	111	7.2	**0.023**	1.3	-	39.4
Unit 21	12	1.3	0.862	0.1	-	35.4
Unit 22	48	1.0	Ref			
Reference	UNIDAD 22					

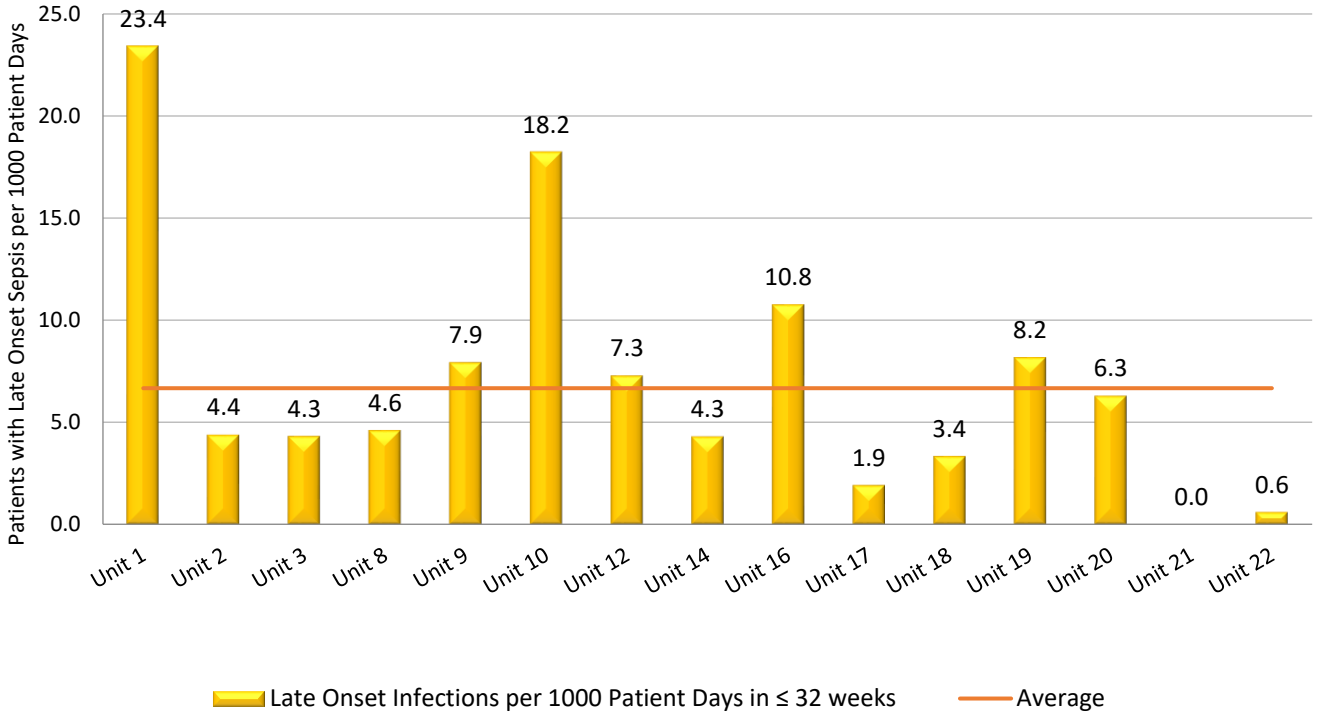
Odd Ratio: (OR) Reference Unit 22 was chosen for the number of infants and low incidence of infections. A logistic regression with adjustment by SNAPEPE II and Gestational Age was performed. The maximum likelihood estimation method proposed by David Firth (Firthlogit) for the low frequency of events was used. The low frequency may explain the imprecision of the estimates for some of the units. Statistically significant p values are marked in bold.

Additionally, the value of p was calculated to assess the statistical significance of the results of 0.05.

Comment: Late onset sepsis or infection associated with health care is considered when there is a positive blood culture or cerebrospinal fluid (CSF) for bacteria or fungi after the second day of life. Only patients with complete data were included for the analysis. All readmissions were included. Infections in blood and CSF are counted separately. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

PRESENTATION 31

Late Onset Infections per 1000 Patient Days in infants ≤ 32 weeks Gestational Age (graph)



The unit 21 with 12 patients didn´t report any infection in < 33 weeks (positive blood culture or CSF).
Average is increase by the units with many infections.

Late Onset Infections per 1000 Patient Days in infants ≤ 32 weeks Gestational Age (table)

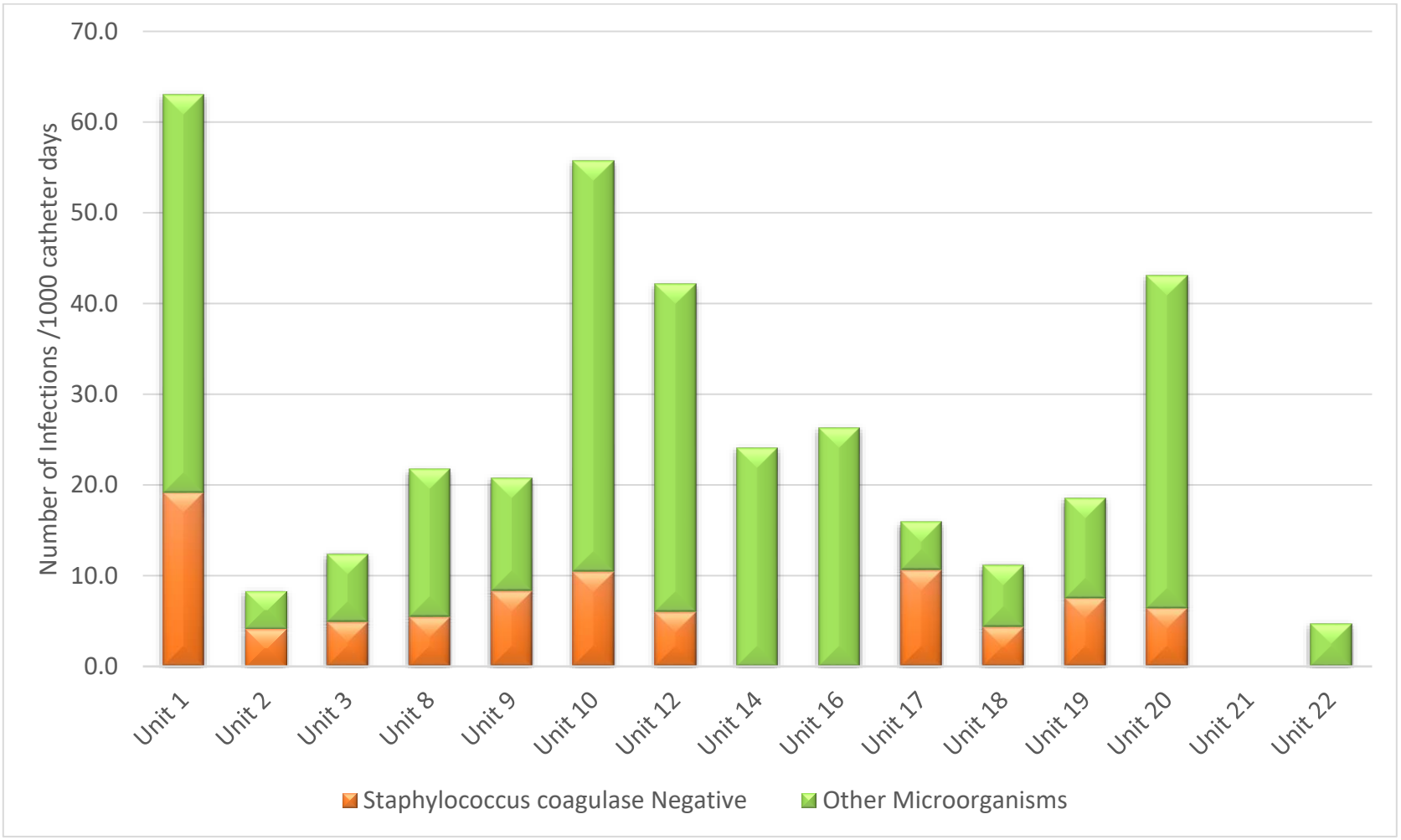
UNITS	Number de Patients*	Late Onset Infections* per 1000 Patient Days in ≤ 32 weeks	Total Days of Stay*
Unit 1	45	23.4	2348
Unit 2	18	4.4	454
Unit 3	84	4.3	6449
Unit 8	13	4.6	432
Unit 9	29	7.9	1888
Unit 10	16	18.2	548
Unit 12	13	7.3	548
Unit 14	15	4.3	463
Unit 16	13	10.8	557
Unit 17	17	1.9	2572
Unit 18	70	3.4	3273
Unit 19	79	8.2	4392
Unit 20	106	6.3	4439
Unit 21	9	0.0	788
Unit 22	45	0.6	1602
Total	654	3.7	30753

* For the number of infections, the number of patients and for the number of days of stay, all who remained hospitalized for less than 3 days were excluded

Comment: **L**ate-onset infection is defined when there is a positive blood culture or CSF for bacteria or fungi after the second day of life. Only patients with complete data <33 weeks Gestational Age at birth were included (validated). It is possible that sites with a high transfer rate to a lower level may report a high incidence since they are more stable and with less risk of infection. Readmissions were not included. Infections in blood and CSF are counted separately. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

PRESENTATION 32

Late Sepsis per 1000 Catheter Days in infants ≤ 32 weeks Gestational Age (graph)



The unit 21 with 12 patients didn´t report any infection in < 33 weeks (positive blood culture or CSF).

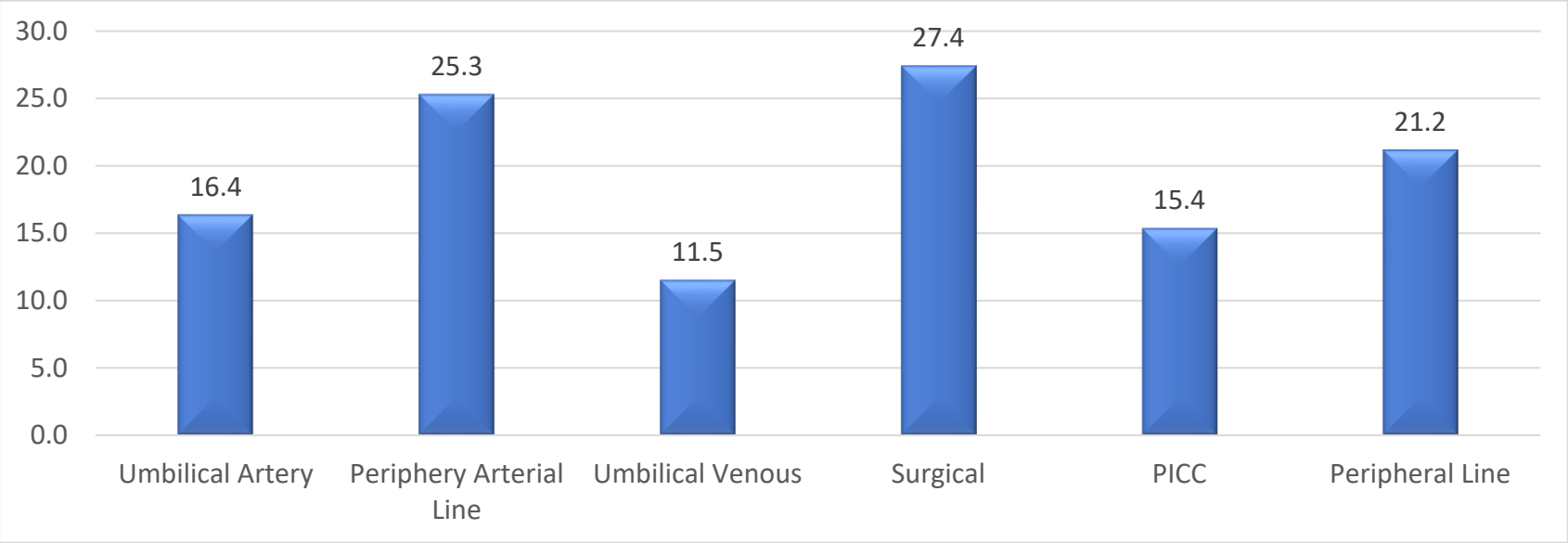
Late Sepsis per 1000 Catheter Days in infants ≤ 32 weeks Gestational Age (table)

UNITS	Central catheter days	Number of Infections in < 33 weeks	Number of Infections /1000 catheter days	*Staphylococcus* coagulase Negative		Other Microorganisms	
				Number of Infections Coagulase Negative	Number of Infections /1000 catheter days	Number of Infections Other	Number of Infections /1000 catheter days
Unit 1	43	63.1	888	17	19.1	39	43.9
Unit 2	24	8.3	240	1	4.2	1	4.2
Unit 3	84	12.4	2,259	11	4.9	17	7.5
Unit 8	15	21.7	184	1	5.4	3	16.3
Unit 9	31	20.7	964	8	8.3	12	12.4
Unit 10	16	55.7	287	3	10.5	13	45.3
Unit 12	13	42.2	166	1	6.0	6	36.1
Unit 14	23	24.1	166	0	0.0	4	24.1
Unit 16	12	26.3	190	0	0.0	5	26.3
Unit 17	21	15.9	377	4	10.6	2	5.3
Unit 18	72	11.2	1,613	7	4.3	11	6.8
Unit 19	84	18.6	2,263	17	7.5	25	11.0
Unit 20	111	43.1	1,715	11	6.4	63	36.7
Unit 21	12	0.0	109	0	0.0	0	0.0
Unit 22	48	4.7	422	0	0.0	2	4.7
TOTAL /Average	609	51.4	11843	81	6.8	203	17.1

Comment: A patient with late-onset infection is defined when there is a positive blood culture or CSF for bacteria or fungi after the second day of life. Only patients with complete data <33 weeks birth Gestational Age were included. If a baby had more than one episode of infection, each was counted separate. Other Microorganisms include *Enterobacter cloacae*, *Enterococcus* sp, *Streptococcus* group B, *Clamydia trachomatis, Citrobacter diversus, Bifidobacteria* species, *Citrobacter freundi, Klbesiella oxytoca, Serratia marcenses* and other gram-positive cocci. Consider the difference in the number of central catheter days in the different units when analyzing the data. Infections in blood and CSF are counted separately. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

PRESENTATION 33

Positive Cultures during catheter use **per 1000 Catheter Days in Infants ≤ 32 weeks Gestational Age according to catheter type (graph)**



Comment: An infection was counted if the blood or spinal fluid cultures were positive when one of the catheters was being used, if there were more than one catheter, it was accounted separately. The number of total days with the respective catheter per 1000 days was used as the denominator. There is no information on what number of catheter changes were made or days between use. Infections in blood and CSF are counted separately.

Positive cultures during catheter use **per 1000 catheter days in infants ≤ 32 weeks Gestational Age according to catheter type (table)**

Catheter Type	Number of positive cultures during catheter use	Total number of days with each type of catheter	Positive cultures x 1000 catheter days
Umbilical Artery	20	1,221	16.4
Periphery Arterial Line	4	158	25.3
Umbilical Venous	23	1,995	11.5
Surgical	11	401	27.4
PICC	108	7,030	15.4
Peripheral Line	22	1,038	21.2

Positive culture using catheter was defined when the date of positive culture coincided with the catheter being used. When more than one catheter is used at the same time, each was counted separately. Infections in blood and CSF are counted separately. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

PRESENTATION 34

Neuroimaging Anomalies in infants ≤ 32 weeks Gestational Age by UNIT.
Intraventricular Hemorrhage I and II (table)

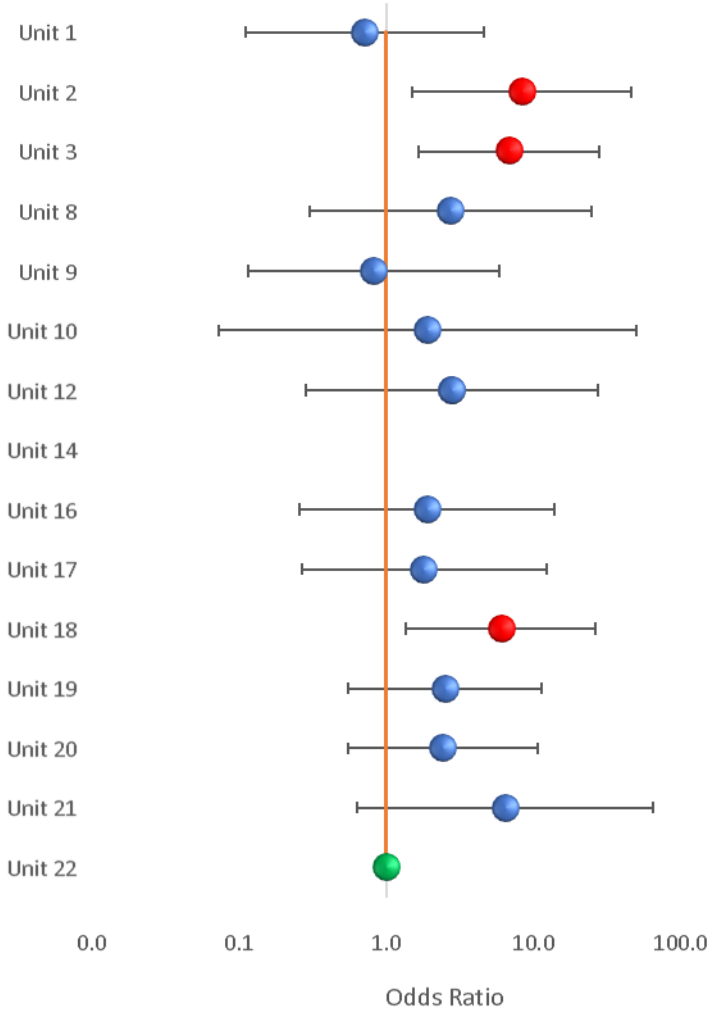
UNITS	Gestational Age (weeks)	<25	25-26	27-28	29-30	31-32	Total
	Patients with imagen	1	5	9	12	15	42
Unit 1	# Patients with IVH I and II	0	2	0	0	0	2
	Percentage	0	40%	0%	0%	0%	5%
	Patients with imagen	0	1	2	6	8	17
Unit 2	# Patients with IVH I and II	0	1	2	2	0	5
	Percentage		100%	100%	33%	0%	29%
	Patients with imagen	0	6	19	16	28	69
Unit 3	# Patients with IVH I and II	0	5	8	4	3	20
	Percentage		83%	42%	25%	11%	29%
	Patients with imagen	0	0	3	3	4	10
Unit 8	# Patients with IVH I and II	0	0	1	0	0	1
	Percentage		0%	33%	0%	0%	10%
	Patients with imagen	2	1	7	5	14	29
Unit 9	# Patients with IVH I and II	0	0	0	1	1	2
	Percentage	0	0	0	0.2	7%	7%
	Patients with imagen	0	0	1	1	1	3
Unit 10	# Patients with IVH I and II	0	0	0	0	0	0
	Percentage			0%	0%	0%	0%
	Patients with imagen	0	1	2	6	2	11
Unit 12	# Patients with IVH I and II	0	0	1	1	0	2
	Percentage		0%	50%	17%	0%	18%
	Patients with imagen	1	0	8	0	4	13
Unit 16	# Patients with IVH I and II	1	0	1	0	0	2
	Percentage	100%	0%	13%	0%	0%	15%
	Patients with imagen	0	1	6	4	6	17
Unit 17	# Patients with IVH I and II	0	0	0	1	1	2
	Percentage		0%	0%	25%	17%	12%
	Patients with imagen	2	3	6	12	20	43
Unit 18	# Patients with IVH I and II	2	1	3	5	1	12
	Percentage	1	33%	0.5	42%	5%	28%
	Patients with imagen	0	4	9	21	34	68
Unit 19	# Patients with IVH I and II	0	1	3	1	4	9
	Percentage		25%	33%	5%	12%	13%
	Patients with imagen	0	8	21	9	33	71
Unit 20	# Patients with IVH I and II	0	3	2	1	4	10
	Percentage		38%	10%	11%	12%	14%

UNITS	Gestational Age (weeks)	<25	25-26	27-28	29-30	31-32	Total
Unit 21	Patients with imagen	0	0	0	2	4	6
	# Patients with IVH I and II	0	0	0	1	0	1
	Percentage		0%	0%	50%	0%	17%
Unit 22	Patients with imagen	0	2	5	17	22	46
	# Patients with IVH I and II	0	0	1	1	0	2
	Percentage		0%	20%	6%	0%	4%

Comment: Unit 14 did not report any hemorrhage. Patients with complete data with neuroimaging were included. Germinal matrix hemorrhage and/or intraventricular hemorrhage without ventricular enlargement are included in grade I or II intraventricular hemorrhage (IVH). The low number of infants makes interpretation difficult. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

PRESENTATION 35

ODDS RATIO Neuroimaging Anomalies in infants ≤ 32 weeks Gestational Age by UNIT. (Graph with log scale) Intraventricular Hemorrhage I and II



In red the units with significant difference and in green referent unit. Interpretation of some of the data should be done with caution because some CI are large.

ODDS RATIO Neuroimaging Anomalies in infants ≤ 32 weeks Gestational Age by UNIT. Intraventricular Hemorrhage I and II (table)

UNITS	OR	P values	CI 95%		
Unit 1	0.7	0.724	0.1	-	4.6
Unit 2	8.3	**0.015**	1.5	-	46.4
Unit 3	6.9	**0.008**	1.7	-	28.4
Unit 8	2.8	0.368	0.3	-	25.2
Unit 9	0.8	0.840	0.1	-	5.8
Unit 10	1.9	0.701	0.1	-	50.0
Unit 12	2.8	0.376	0.3	-	27.5
Unit 14	0.0				
Unit 16	1.9	0.527	0.3	-	13.9
Unit 17	1.8	0.544	0.3	-	12.4
Unit 18	6.0	**0.019**	1.4	-	26.8
Unit 19	2.5	0.231	0.6	-	11.3
Unit 20	2.4	0.242	0.6	-	10.6
Unit 21	6.5	0.115	0.6	-	65.6
Unit 22	1.0	ref			
Reference	UNIT 22				

Comment: patients with complete data with neuroimaging were included. Unit 14 did not report any hemorrhage. The risk of patients with hemorrhage I and II was calculated against all patients with neuroimaging. Germinal matrix hemorrhage and/or intraventricular hemorrhage without ventricular enlargement are included in grade I or II intraventricular hemorrhage (IVH). Statistically significant p values are marked in bold.

Odd Ratio: (OR) Reference Unit 22 was chosen for the number of infants and lowest incidence values. A logistic regression with adjustment by SNAPEPE II and Gestational Age was performed. The maximum likelihood estimation method proposed by David Firth (Firthlogit) for the low frequency of events was used. The low frequency may explain the imprecision of the estimates for some of the units. Additionally, the value of p was calculated to assess the statistical significance of the results of 0.05. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

PRESENTATION 36

Anomalies in Neuroimaging (Intraventricular Hemorrhage III and IV) in infants ≤ 32 weeks Gestational Age by unit (table)

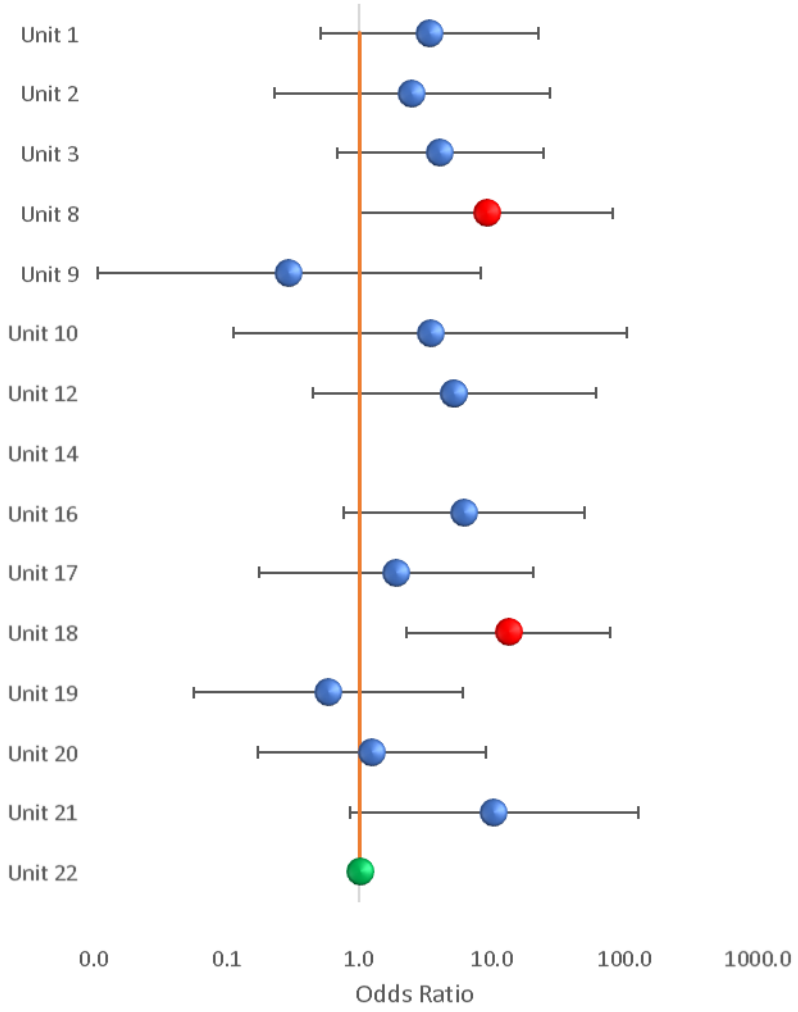
UNITS	Gestational Age (weeks)	<25	25-26	27-28	29-30	31-32	Total
	Patients with imagen	1	5	9	12	15	42
Unit 1	# Patients with IVH III and IV	1	2	1	1	0	5
	Percentage	100%	40%	11%	8%	0%	12%
	Patients with imagen	0	1	2	6	8	17
Unit 2	# Patients with IVH III and IV		0	0	1	0	1
	Percentage		0%	0%	17%	0%	6%
	Patients with imagen	0	6	19	16	28	69
Unit 3	# Patients with IVH III and IV		3	3	0	3	9
	Percentage		50%	16%	0%	11%	13%
	Patients with imagen	0	0	3	3	4	10
Unit 8	# Patients with IVH III and IV			1	0	1	2
	Percentage			33%	0%	25%	20%
	Patients with imagen	2	1	7	5	14	29
Unit 9	# Patients with IVH III and IV	0	0	0	0	0	0
	Percentage	0%	0%	0%	0%	0%	0%
	Patients with imagen	0	0	1	1	1	3
Unit 10	# Patients with IVH III and IV			0	0	0	0
	Percentage			0%	0%	0%	0%
	Patients with imagen	0	1	2	6	2	11
Unit 12	# Patients with IVH III and IV		0	1	0	0	1
	Percentage		0%	50%	0%	0%	9%
	Patients with imagen	1	0	8	0	4	13
Unit 16	# Patients with IVH III and IV	1	0	2	0	0	3
	Percentage	100%		25%		0%	23%

UNITS	Gestational Age (weeks)	<25	25-26	27-28	29-30	31-32	Total
	Patients with imagen	0	1	6	4	6	17
Unit 17	# Patients with IVH III and IV		0	0	1	0	1
	Percentage		0%	0%	25%	0%	6%
	Patients with imagen	2	3	6	12	20	43
Unit 18	# Patients with IVH III and IV	0	3	3	4	4	14
	Percentage	0%	100%	50%	33%	20%	33%
	Patients with imagen	0	4	9	21	34	68
Unit 19	# Patients with IVH III and IV		0	0	1	0	1
	Percentage		0%	0%	5%	0%	1%
	Patients with imagen	0	8	21	9	33	71
Unit 20	# Patients with IVH III and IV		1	1	1	0	3
	Percentage		13%	5%	11%	0%	4%
	Patients with imagen	0	0	0	2	4	6
Unit 21	# Patients with IVH III and IV				0	1	1
	Percentage				0%	25%	17%
	Patients with imagen	0	2	5	17	22	46
Unit 22	# Patients with IVH III and IV		0	0	1	0	1
	Percentage		0%	0%	6%	0%	2%

Comment: Unit 14 did not report any hemorrhage. Only patients with central nervous system images were included. Empty boxes mean no patients or information in that group. Intraventricular hemorrhage with ventricular enlargement or parenchymal echogenicity or periventricular leukomalacia are considered grade III or IV IVH (intraventricular hemorrhage). Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

PRESENTATION 37

ODDS RATIO of Anomalies in Neuroimaging (Hemorrhage Intraventricular III and IV) in infants ≤ 32 weeks Gestational Age by unit (graph with log scale)



In red the units with significant difference and in green referent unit. Interpretation of some of the data should be done with caution because some CI are large.

Odds Ratio of Anomalies in Neuroimaging (Hemorrhage Intraventricular III and IV) in infants ≤ 32 weeks Gestational Age by unit (table)

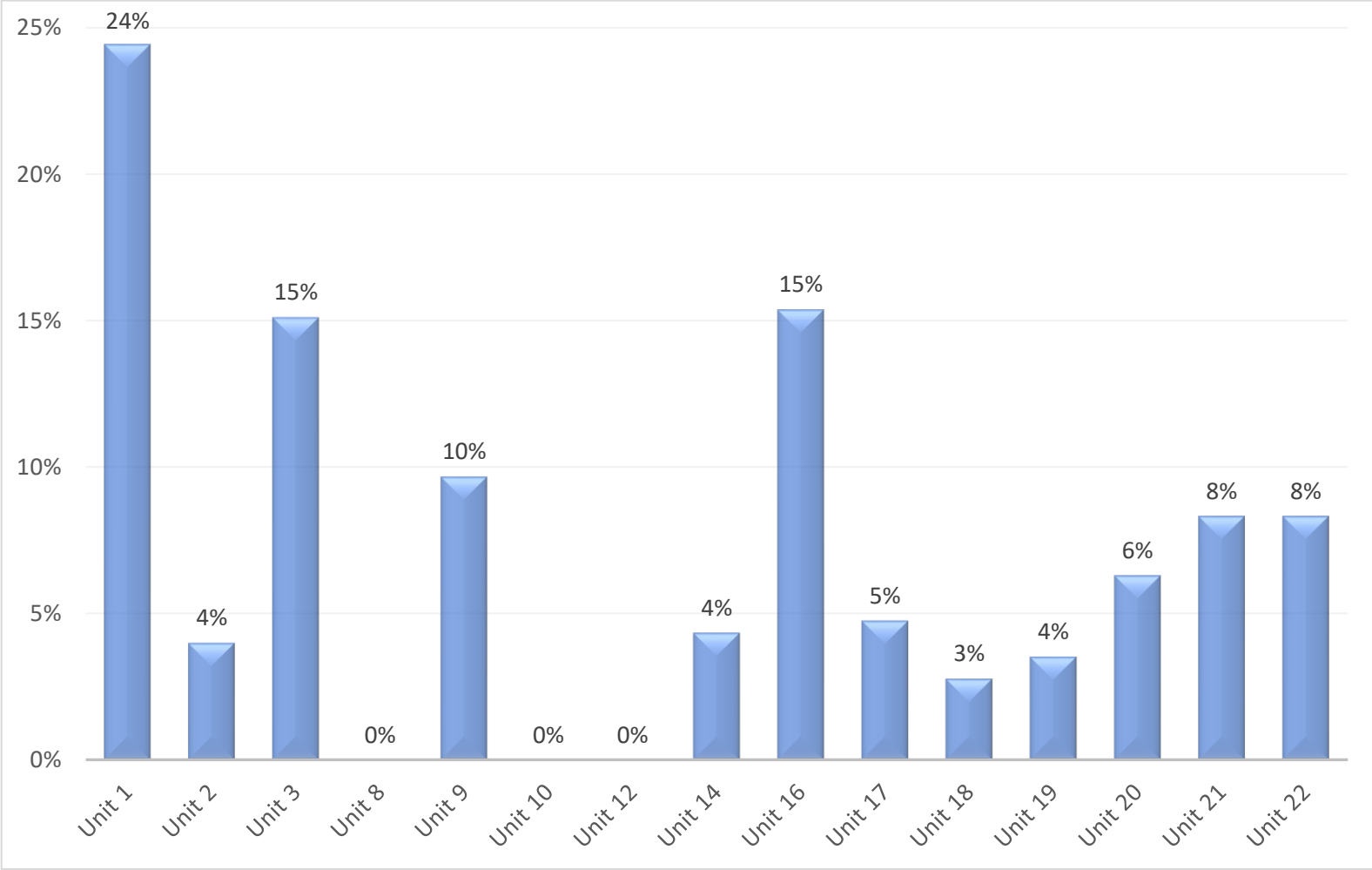
UNITS	OR	P values	CI 95%		
Unidad 1	3.4	0.207	0.5	-	22.4
Unidad 2	2.5	0.454	0.2	-	27.1
Unidad 3	4.1	0.125	0.7	-	24.2
Unidad 8	9.0	**0.049**	1.0	-	80.7
Unidad 9	0.3	0.472	0.0	-	8.2
Unidad 10	3.4	0.479	0.1	-	103.1
Unidad 12	5.2	0.190	0.4	-	60.7
Unidad 14	0.0				
Unidad 16	6.1	0.089	0.8	-	49.8
Unidad 17	1.9	0.599	0.2	-	20.4
Unidad 18	13.2	**0.004**	2.2	-	77.7
Unidad 19	0.6	0.649	0.1	-	6.0
Unidad 20	1.2	0.828	0.2	-	8.9
Unidad 21	10.3	0.067	0.8	-	125.6
Unidad 22	1.0				
Reference	UNIT 22				

Intraventricular hemorrhage with ventricular enlargement or parenchymal echogenicity or periventricular leukomalacia are considered grade III or IV IVH (intraventricular hemorrhage). Reference unit 22 was chosen for the adequate number of infants and low incidence. A logistic regression was performed with adjustment for SNAPEPE II and Gestational Age. The maximum penalized likelihood estimation method proposed by David Firth (Firthlogit) for the low frequency of events was used. The low frequency in some units also explains the imprecision of the estimates. The low number of infants underestimates the difference.

Statistically significant p values are marked in bold. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

PRESENTATION 38

NEC (Stage ≥ 2) in Infants ≤ 32 weeks Gestational Age (Frequency and treatment by UNIT)



Note that some units reported 0 NEC.

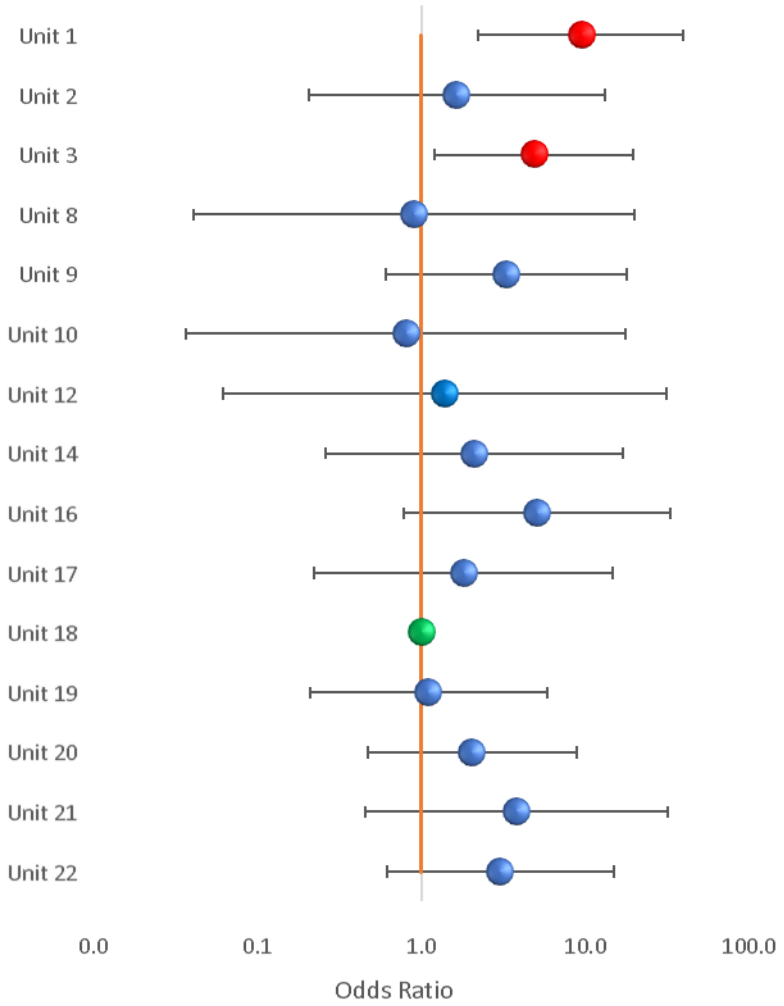
NEC (Stage ≥ 2) in Infants ≤ 32 weeks Gestational Age (Frequency and treatment by UNIT)

UNITS			Number of Patients	NEC		Treatment			
						Surgical		Drainage	
Unit 1	n	%	45	11	24%	2	18%	1	9%
Unit 2	n	%	25	1	4%	0	0%	0	0%
Unit 3	n	%	86	13	15%	9	69%	10	77%
Unit 8	n	%	15	0					
Unit 9	n	%	31	3	10%	1	33%	0	0%
Unit 10	n	%	17	0					
Unit 12	n	%	13	0					
Unit 14	n	%	23	1	4%	0	0%	0	0%
Unit 16	n	%	13	2	15%	0	0%	0	0%
Unit 17	n	%	21	1	5%	0	0%	0	0%
Unit 18	n	%	72	2	3%	1	50%	1	50%
Unit 19	n	%	85	3	4%	2	67%	1	33%
Unit 20	n	%	111	7	6%	1	14%	6	86%
Unit 21	n	%	12	1	8%	1	100%	0	0%
Unit 22	n	%	48	4	8%	1	25%	3	75%
Total	n	%	617	49	8%	18	37%	22	45%

Comment: NEC: Necrotizing Enterocolitis. Patients under 33 weeks Gestational Age who had complete data were included. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year. Empty cells, no patient/information.

PRESENTATION 39

Odds Ratio in NEC (Stage ≥ 2) in ≤ 32 weeks Gestational Age Adjusted by SNAPEPE II and Gestational Age (By UNITS) (graphic with log scale)



In red the units with significant difference and in green referent unit chosen for low incidence with enough number of cases. Interpretation of some of the data should be done with caution because some CI are large. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

Odds Ratio in NEC (Stage ≥ 2) in ≤ 32 weeks Gestational Age Adjusted by SNAPEPE II and Gestational Age (By UNITS) (table)

UNITS	OR	P values	CI 95%
Unit 1	9.4	**0.002**	2.2 - 39.7
Unit 2	1.7	0.636	0.2 - 13.2
Unit 3	4.9	**0.026**	1.2 - 19.7
Unit 8	0.9	0.952	0.0 - 20.1
Unit 9	3.3	0.167	0.6 - 18.0
Unit 10	0.8	0.892	0.0 - 17.6
Unit 12	1.4	0.836	0.1 - 31.4
Unit 14	2.1	0.483	0.3 - 17.1
Unit 16	5.1	0.088	0.8 - 33.3
Unit 17	1.8	0.578	0.2 - 14.6
Unit 18	1.0	ref	
Unit 19	1.1	0.900	0.2 - 5.9
Unit 20	2.1	0.337	0.5 - 8.9
Unit 21	3.8	0.217	0.5 - 32.1
Unit 22	3.0	0.171	0.6 15.0
Reference	18		

Odd Ratio. Reference unit 18 was chosen at it has the lowest incidence with enough number of infants. A logistic regression with adjustment by SNAPEPE II and Gestational Age was done. The maximum penalized likelihood estimation method proposed by David Firth (Firthlogit) for the low frequency of events was used. The statistics should be interpreted with caution due to the small number of infants and large intervals. Statistically significant p values are marked in bold. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

PRESENTATION 40

Supplemental oxygen at 36w PMA in infants ≤ 32 weeks Gestational Age at Birth by units and Gestational Age groups **(table)**

UNITS	n	%	Gestational Age (weeks)							
			<26		26-28		29-32		Total	
Unit 1	n	%	2	50%	2	25%	1	3%	5	12%
Unit 2	n	%	0		0		2	33%	2	33%
Unit 3	n	%	1	20%	3	13%	6	13%	10	13%
Unit 8	n	%	0		1	100%	4	57%	5	63%
Unit 9	n	%	1	100%	4	67%	4	25%	9	39%
Unit 10	n	%	0		0		1	11%	1	10%
Unit 12	n	%	0		0		2	22%	2	20%
Unit 14	n	%	0		0		0		0	
Unit 16	n	%	0		3	60%	1	33%	4	50%
Unit 17	n	%	0		1	20%	2	22%	3	21%
Unit 18	n	%	1	100%	8	80%	26	59%	35	64%
Unit 19	n	%	1	100%	7	64%	21	41%	29	46%
Unit 20	n	%	1	100%	15	63%	18	35%	34	45%
Unit 21	n	%	0		1	100%	1	11%	2	20%
Unit 22	n	%	0		3	75%	15	52%	18	55%

*Patients <36w discharge/transfer/died were excluded. Empty cells mean no data. Comments: Only patients with complete data were included. Infants were classified with supplemental oxygen at 36w PMA (pos menstrual age) if they received supplemental O_2 on the day they had 36w PMA. No chest radiography was required at the time of diagnosis. The statistics should be interpreted with caution due to the small number of infants in some units. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year. Some units are high above sea level.

PRESENTATION 41

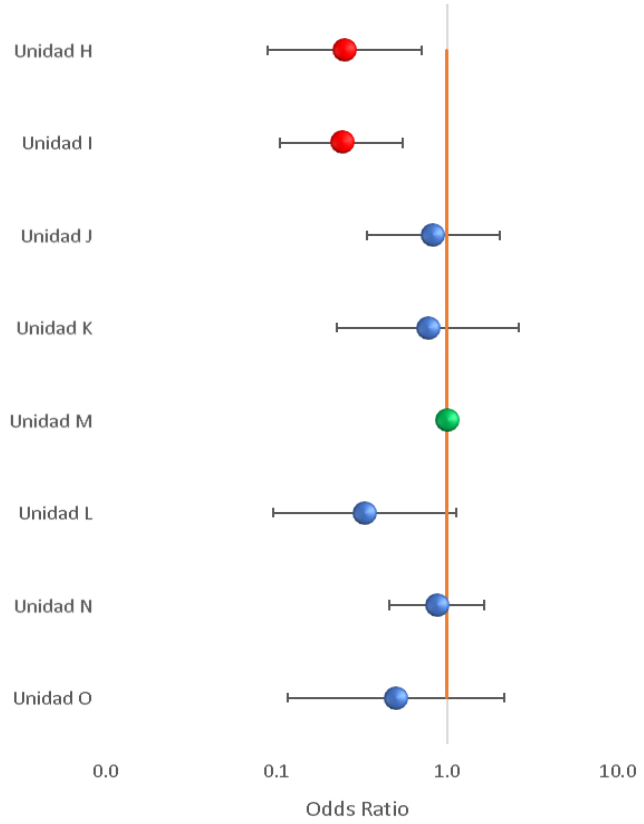
Supplemental oxygen at 36w PMA, at discharge or Death in infants ≤ 32 weeks Gestational Age by unit and Gestational Age group (table)

UNIDADES	n	%	Gestational Age (weeks)							
			<26		26-28		29-32		Total	
Unit 1	n	%	4	80%	4	40%	1	3%	9	20%
Unit 2	n	%	2	100%	3	60%	5	28%	10	40%
Unit 3	n	%	7	70%	12	46%	7	14%	26	30%
Unit 8	n	%	2	100%	1	20%	4	50%	7	47%
Unit 9	n	%	2	100%	7	78%	8	40%	17	55%
Unit 10	n	%	1	100%	2	67%	2	15%	5	29%
Unit 12	n	%			3	100%	2	20%	5	38%
Unit 14	n	%	1	100%			1	5%	2	9%
Unit 16	n	%	1	100%	3	38%	1	25%	5	38%
Unit 17	n	%			8	89%	4	33%	12	57%
Unit 18	n	%	3	100%	11	92%	35	61%	49	68%
Unit 19	n	%	3	100%	15	88%	31	48%	49	58%
Unit 20	n	%	3	100%	28	78%	25	35%	56	50%
Unit 21	n	%			1	100%	6	55%	7	58%
Unit 22	n	%	1	100%	4	67%	20	49%	25	52%

Empty cells mean no patients or information. Comments: Infants were classified with supplemental Oxygen at 36w PMA if they received supplemental O_2 on the day they had 36w PMA. No chest radiograph was required at the time of diagnosis. The statistics should be interpreted with caution due to the small number of infants in some units. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

PRESENTATION 42

ODDS RATIO of supplemental OXYGEN at 36w PMA in UNITS < 2000 m over sea level Adjusted by SNAPEPE II and Gestational Age in ≤ 32 w Gestational Age (graph)



In green referent unit, in red units statistically significantly different. PMA pos menstrual age.

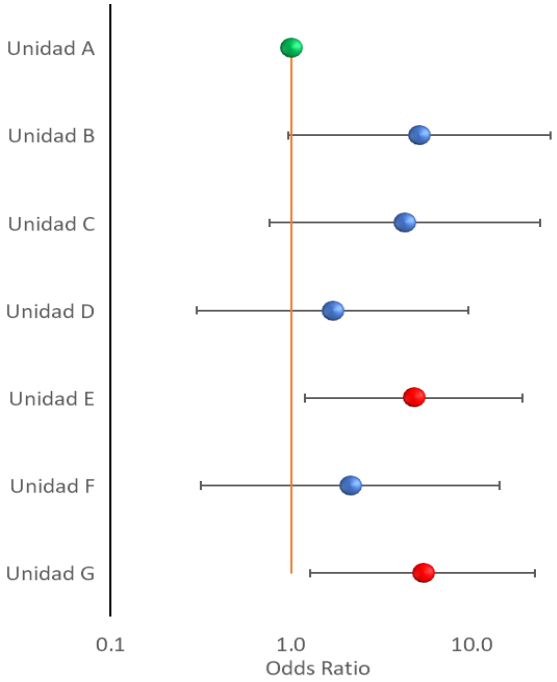
UNIDADES	OR	Valor de p	CI 95%		
Unit L	0.1	**0.000**	0.0	-	0.4
Unit M	1.0	**Reference**			
Unit N	0.1	**0.000**	0.1	-	0.3
Unit K	0.4	0.080	0.2	-	1.1
Unit I	0.1	**0.008**	0.0	-	0.5
Unit H	0.2	0.058	0.0	-	1.1
Unit J	0.0	**0.011**	0.0	-	0.4
Unit O	0.5	**0.018**	0.3	-	0.9
Reference	M				

Odd Ratio. Reference unit M was chosen for the highest value with an adequate number of infants. A logistic regression with adjustment by SNAPEPE II and Gestational Age was performed. The maximum penalized likelihood estimation method proposed by David Firth (Firthlogit) for the low frequency of events was used. Statistically significant p values are marked in bold.

Comment: For the analysis of the variables of units above sea level, due to the small number of units in each group it was decided to assign letters for confidentiality. The statistics should be interpreted with caution due to the small number of infants in some units. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

PRESENTATION 43

OXYGEN supplement Odds Ratio at 36 weeks (By UNITS) at ≥ 2000 m over sea level, Adjusted by SNAPEPE II and Gestational Age in ≤ 32 weeks Gestational Age at birth (Graph [with log scale]/Table)



In green referent unit, in red units statistically significantly different

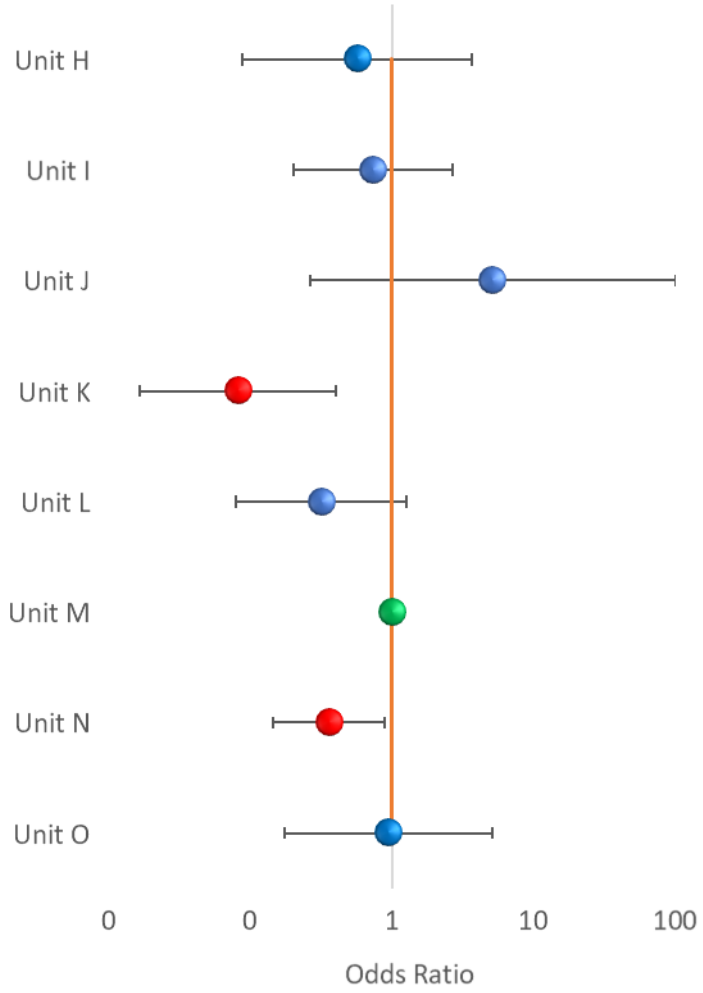
UNITS	OR	p value	CI 95%
Unit A	1.0	Ref	
Unit B	5.1	0.056	1.0 - 27.3
Unit C	4.2	0.099	0.8 - 23.6
Unit D	1.7	0.551	0.3 - 9.6
Unit E	4.7	**0.028**	1.2 - 18.9
Unit F	2.1	0.440	0.3 - 14.3
Unit G	5.3	**0.022**	1.3 - 22.3
Reference	A		

Reference unit A was chosen for the low incidence and adequate number of infants. A logistic regression with adjustment by SNAPEPE II and Gestational Age was performed. The maximum penalized likelihood estimation method proposed by David Firth (Firthlogit) for the low frequency of events was used. Statistically significant p values are marked in bold.

Comment: For the analysis of the variables of units above sea level, due to the small number of units in each group it was decided to assign letters for confidentiality. The statistics should be interpreted with caution due to the small number of infants in some units. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

PRESENTATION 44

OXYGEN supplement Odds Ratio at 36 weeks PMA, at discharge or DEATH in UNITS < 2000 m over sea level, Adjusted by SNAPEPE II and Gestational Age (By UNITS) in ≤ 32 w Gestational Age (Graph with log scale)



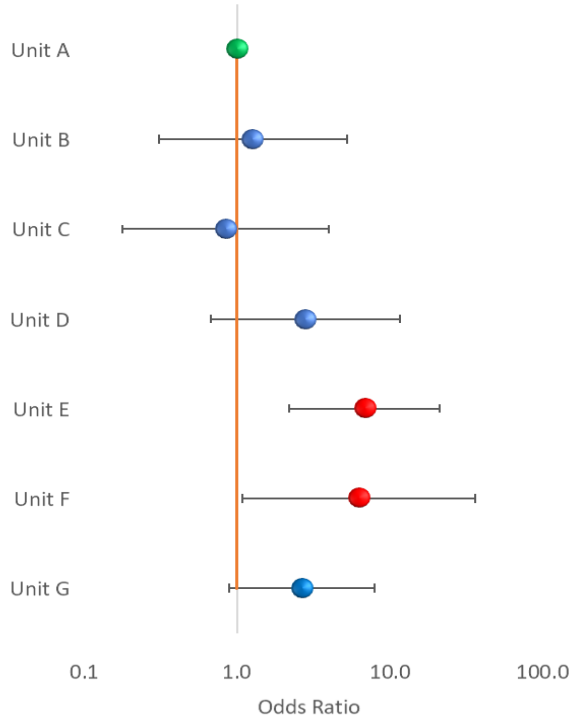
In green referent unit, in red units statistically significantly different

UNIDADES	OR	Valor de p	CI 95%		
Unit H	0.6	0.552	0.1	-	3.7
Unit I	0.7	0.639	0.2	-	2.7
Unit J	5.2	0.278	0.3	-	100.1
Unit K	0.1	**0.002**	0.0	-	0.4
Unit L	0.3	0.104	0.1	-	1.3
Unit M	1.0				
Unit N	0.4	**0.028**	0.1	-	0.9
Unit O	0.9	0.948	0.2	-	5.1
Reference	M				

As in Presentation 43.

PRESENTATION 45

OXYGEN supplement Odds Ratio at 36 weeks PMA, at discharge or DEATH in UNITS ≥ 2000 m over sea level, Adjusted by SNAPEPE II and Gestational Age (By UNIT) in ≤ 32 w Gestational Age (graph)



In green referent unit, in red units statistically significantly different

UNITS	OR	p value	CI 95%
Unit A	1.0	Ref	
Unit B	1.3	0.742	0.3 - 5.2
Unit C	0.8	0.826	0.2 - 4.0
Unit D	2.8	0.159	0.7 - 11.6
Unit E	6.8	**0.001**	2.2 - 21.2
Unit F	6.2	**0.041**	1.1 - 35.9
Unit G	2.6	0.082	0.9 - 7.9
Reference	A		

Reference unit A was chosen for the large number of infants with the lowest values. A logistic regression with adjustment by SNAPEPE II and Gestational Age was performed. The maximum penalized likelihood estimation method proposed by David Firth (Firthlogit) for the low frequency of events was used. For the analysis of the variables of units above sea level, due to the small number of units in each group it was decided to assign letters for confidentiality. The statistics should be interpreted with caution due to the small number of infants in some units. Death, 36w PMA and oxygen at discharge was define in previous presentations. Statistically significant p values are marked in bold. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

PRESENTATION 46

Use and Duration of PRENATAL Steroids in Mothers of Infants ≤ 34 weeks Gestational Age

UNITS		Total number of patients	Received Steroids		Unknown Yes received Steroids		Complete						Partial					
							Last week		Before		Time Unknown		Last week		Before		Unknown	
Unit 1	n %	72	**53**	74%	**0**	0%	**43**	81%	**9**	17%	**0**	0%	**0**	0%	**1**	2%	**0**	0%
Unit 2	n %	29	**24**	83%	**0**	0%	**6**	25%	**5**	21%	**3**	13%	**10**	42%	**0**	0%	**0**	0%
Unit 3	n %	113	**89**	79%	**11**	10%	**37**	42%	**16**	18%	**15**	17%	**18**	20%	**1**	1%	**2**	2%
Unit 8	n %	32	**24**	75%	**0**	0%	**16**	67%	**6**	25%	**1**	4%	**1**	4%	**0**	0%	**0**	0%
Unit 9	n %	54	**45**	83%	**0**	0%	**20**	44%	**13**	29%	**1**	2%	**11**	24%	**0**	0%	**0**	0%
Unit 10	n %	32	**18**	56%	**5**	16%	**5**	28%	**4**	22%	**1**	6%	**8**	44%	**0**	0%	**0**	0%
Unit 12	n %	32	**25**	78%	**0**	0%	**19**	76%	**4**	16%	**0**	0%	**2**	8%	**0**	0%	**0**	0%
Unit 14	n %	26	**17**	65%	**3**	12%	**14**	82%	**1**	6%	**0**	0%	**2**	12%	**0**	0%	**0**	0%
Unit 16	n %	17	**12**	71%	**1**	6%	**6**	50%	**3**	25%	**1**	8%	**2**		**0**	0%	**0**	0%
Unit 17	n %	25	**17**	68%	**0**	0%	**6**	35%	**3**	18%	**0**	0%	**7**	41%	**1**	6%	**0**	0%
Unit 18	n %	125	**94**	75%	**4**	3%	**43**	46%	**4**	4%	**3**	3%	**28**	30%	**16**	17%	**0**	0%
Unit 19	n %	141	**97**	69%	**12**	9%	**36**	37%	**14**	14%	**2**	2%	**35**	36%	**8**	8%	**2**	2%
Unit 20	n %	258	**0**	0%	**233**	90%	**0**	0%	**0**	0%	**0**	0%	**0**	0%	**0**	0%	**0**	0%
Unit 21	n %	18	**11**	61%	**1**	6%	**6**	55%	**2**	18%	**1**	9%	**1**	9%	**1**	9%	**0**	0%
Unit 22	n %	118	**91**	77%	**0**	0%	**71**	78%	**18**	20%	**0**	0%	**2**	2%	**0**	0%	**0**	0%
TOTAL		1092	617	0%	270	44%	328	53%	102	17%	28	5%	127	21%	28	5%	4	1%

Comment: Statistics are based on data entered, and some should be interpreted with caution due to the small number of infants in some units. Readmissions were not included. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

PRESENTATION 47

POSTNATAL Corticosteroids in Infants ≤ 32 weeks Gestational Age, Route and Indication

UNITS	Oral	% of total treated	Intravenous	% of total treated	Inhaled	% of total treated	Total Number of therapies	Total Number of Patients
Unit 1	2	17%	10	83%	0	0%	12	45
Unit 2	0	0%	1	100%	0	0%	1	25
Unit 3	0	0%	21	95%	1	5%	31	86
Unit 8								15
Unit 9	0	0%	3	100%	0	0%	9	31
Unit 10	0	0%	2	100%	0	0%	3	17
Unit 12	0	0%	0	0%	1	100%	1	13
Unit 14								23
Unit 16								13
Unit 17								21
Unit 18	1	17%	5	83%	0	0%	8	72
Unit 19	3	15%	16	80%	1	5%	31	85
Unit 20	2	13%	1	7%	12	80%	24	111
Unit 21								12
Unit 22	4	100%	0	0%	0	0%	7	48
TOTAL	12	14%	59	69%	15	17%	127	605

Comment: Only the units with complete data were included for the analysis (validated). Readmissions were excluded. Only units with more than 10 patients. Empty cells indicate absence of cases reported.

PRESENTATION 48

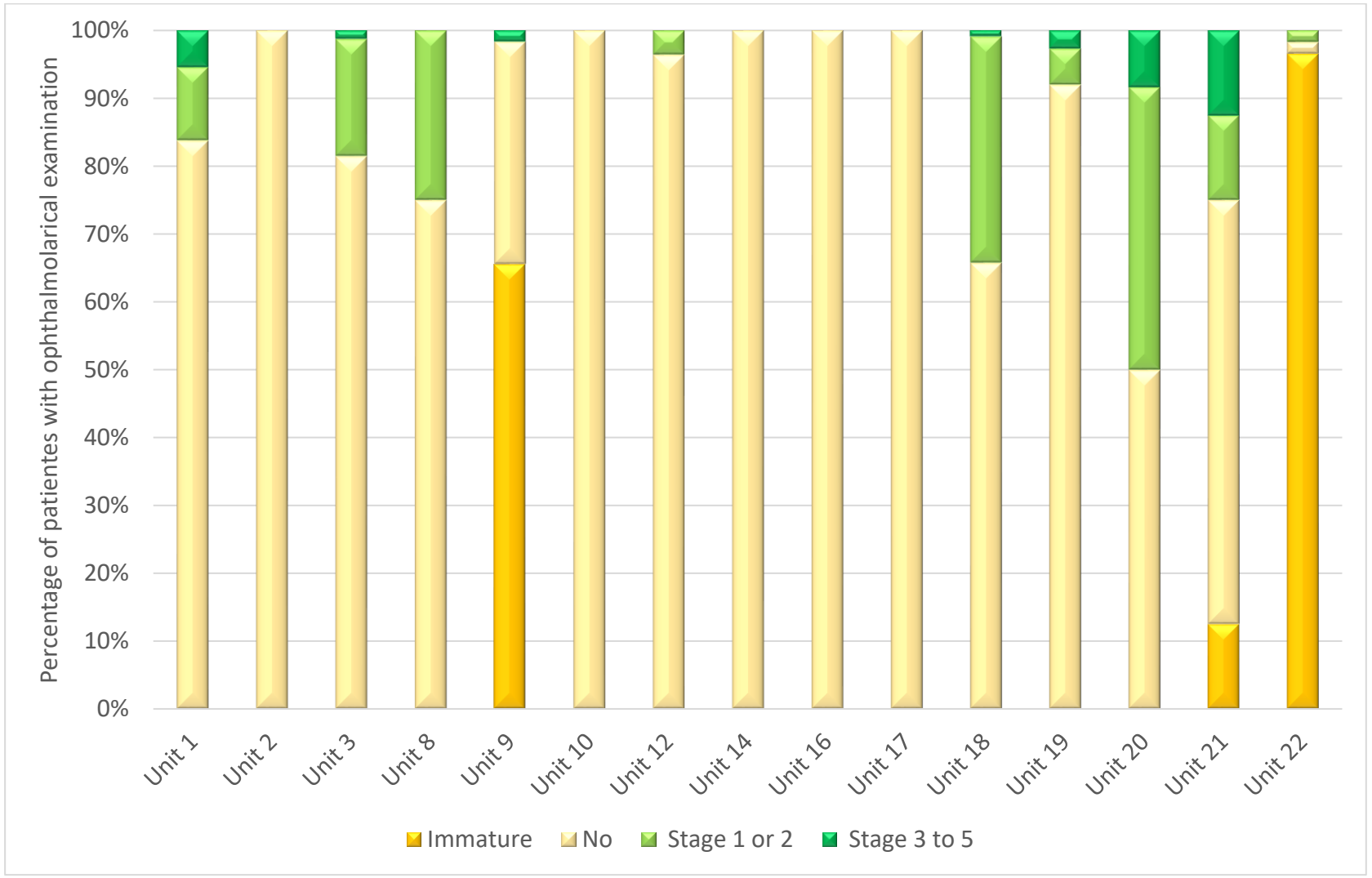
Stages of Retinopathy of Prematurity in all patients with ophthalmological examination (table)

UNITS			Total Number of Neonates	Total Number of patients studied		ROP STAGES							
						Immature		No		Stage 1 or 2		Stage 3 to 5	
Unit 1	n	%	148	37	25%	0	0%	31	84%	4	11%	2	5%
Unit 2	n	%	35	11	31%	0	0%	11	100%	0	0%	0	0%
Unit 3	n	%	113	87	77%	0	0%	66	76%	14	16%	1	1%
Unit 8	n	%	64	8	13%	0	0%	6	75%	2	25%	0	0%
Unit 9	n	%	211	61	29%	40	66%	20	33%	0	0	1	2%
Unit 10	n	%	301	2	1%	0	0%	2	100%	0	0%	0	0%
Unit 12	n	%	315	56	18%	0	0%	54	96%	2	4%	0	0%
Unit 14	n	%	26	1	4%	0	0%	1	100%	0	0%	0	0%
Unit 16	n	%	17	14	82%	0	0%	14	100%	0	0%	0	0%
Unit 17	n	%	27	18	67%	0	0%	18	100%	0	0%	0	0%
Unit 18	n	%	237	114	48%	0	0%	75	66%	38	33%	1	1%
Unit 19	n	%	156	78	50%	0	0%	69	88%	4	5%	2	3%
Unit 20	n	%	1017	12	1%	0	0%	6	50%	5	42%	1	8%
Unit 21	n	%	56	10	18%	1	10%	5	50%	1	10%	1	10%
Unit 22	n	%	577	59	10%	56	95%	1	2%	1	2%	0	0%
TOTAL	n	%	3300	568	17%	97	17%	379	67%	71	13%	9	2%

Comment: All patients from the units with data were included and patients with ophthalmological examination were quantified for this analysis.

This table should be viewed with caution as some cells have a very low number of patients. They are not divided by groups of birth weight because of the low number in some units. Only units with more than 10 patients ≤32 weeks were included. Probably the cases reported as without retinopathy present immature retina.

Stages of Retinopathy of Prematurity in all patients with ophthalmological examination (graph)



PRESENTATION 48A

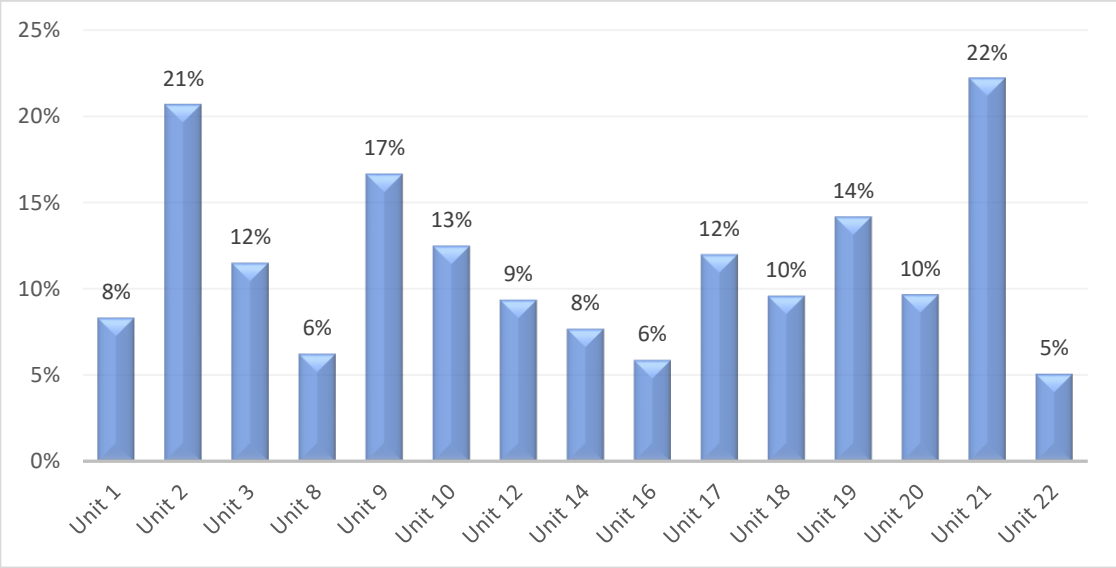
Therapy for Retinopathy of Prematurity in all patients

UNITS	Patients Treated	Cryo		Laser		VEGF		More than one therapy
		n	%	n	%	n	%	n
Unit 1	2	0	0%	0	0%	2	100%	0
Unit 3	5	0	0%	4	80%	1	20%	0
Unit 8	1	0	0%	1	100%	0	0%	0
Unit 9	1	0	0%	1	100%	0	0%	0
Unit 18	3	0	0%	0	0%	3	100%	0
Unit 19	2	0	0%	1	50%	1	50%	0
Unit 20	1	1	50%	0	0%	0	0%	0
Unit 21	1	0	0%	1	100%	0	0%	0
Total	15	1	7%	8	53%	7	47%	0

Comment: only patients with complete information were included. The statistics should be interpreted with caution due to the small number of infants. Some units without ophthalmologist with experience in these treatments send patients to other institutions. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

PRESENTATION 49

Stages III of Retinopathy of Prematurity (ROP) or Death in infants ≤ 32 weeks GA

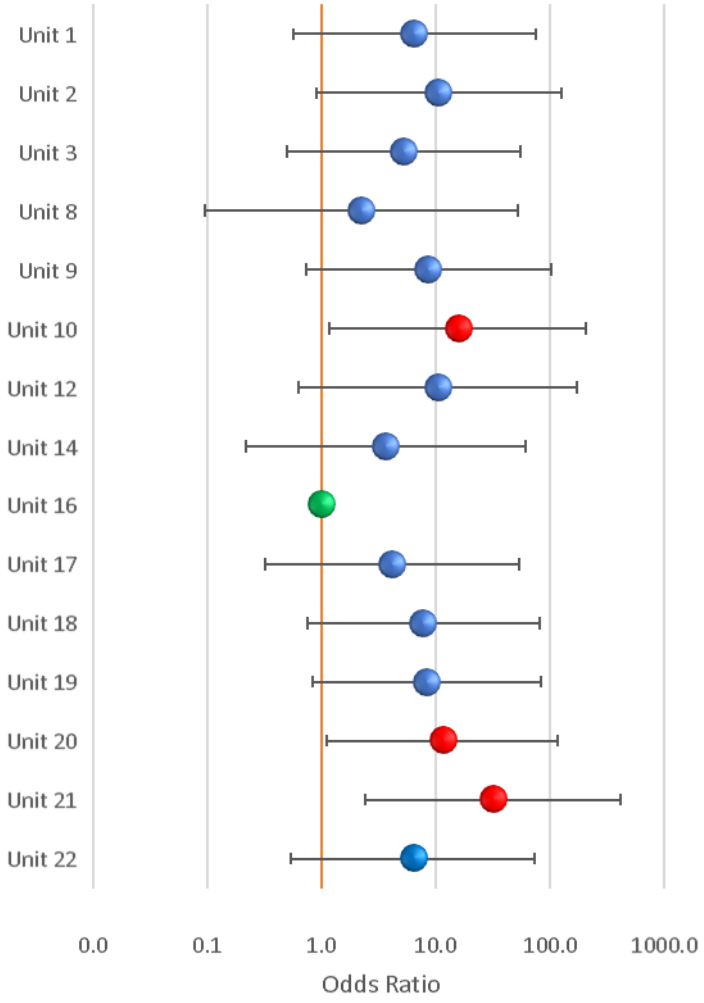


UNITS	Total	Retinopathy III to V	Death	Both	Percentage of Patients with ROP Stage III/IV or Deaths
Unit 1	72	2	4	6	8%
Unit 2	29	1	6	6	21%
Unit 3	113	0	12	13	12%
Unit 8	32	0	2	2	6%
Unit 9	54	1	8	9	17%
Unit 10	32	0	4	4	13%
Unit 12	32	0	3	3	9%
Unit 14	26	0	2	2	8%
Unit 16	17	0	1	1	6%
Unit 17	25	0	3	3	12%
Unit 18	125	1	11	12	10%
Unit 19	141	2	19	20	14%
Unit 20	258	1	24	25	10%
Unit 21	18	1	3	4	22%
Unit 22	118	0	6	6	5%
Total	**1092**	**9**	**108**	**116**	**11%**

Comment: only patients with complete information were included. For this analysis, only patients < 34 weeks GA with ROP stage III were included, plus all patients younger than 34 weeks GA who died. The statistics should be interpreted with caution due to the small number of infants in some units. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

PRESENTATION 50

ODDS RATIO of Retinopathy of Prematurity (ROP) Stages ≥ III or Death in infants with Birthweight ≤ 1500 grs controlled by SNAPEPE II and Gestational Age (graph with CI log scale)



In green referent unit, in red units with statistically significant difference.

Reference unit 16 was chosen for an adequate number of infants and low results. A logistic regression with adjustment by SNAPEPE II and Gestational Age was performed. The maximum penalized likelihood estimation method proposed by David Firth (Firthlogit) for the low frequency of events was used. The statistics should be interpreted with caution due to the small number of infants in some units and very large CI. Death, and ROP III or more was define in previous presentations. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

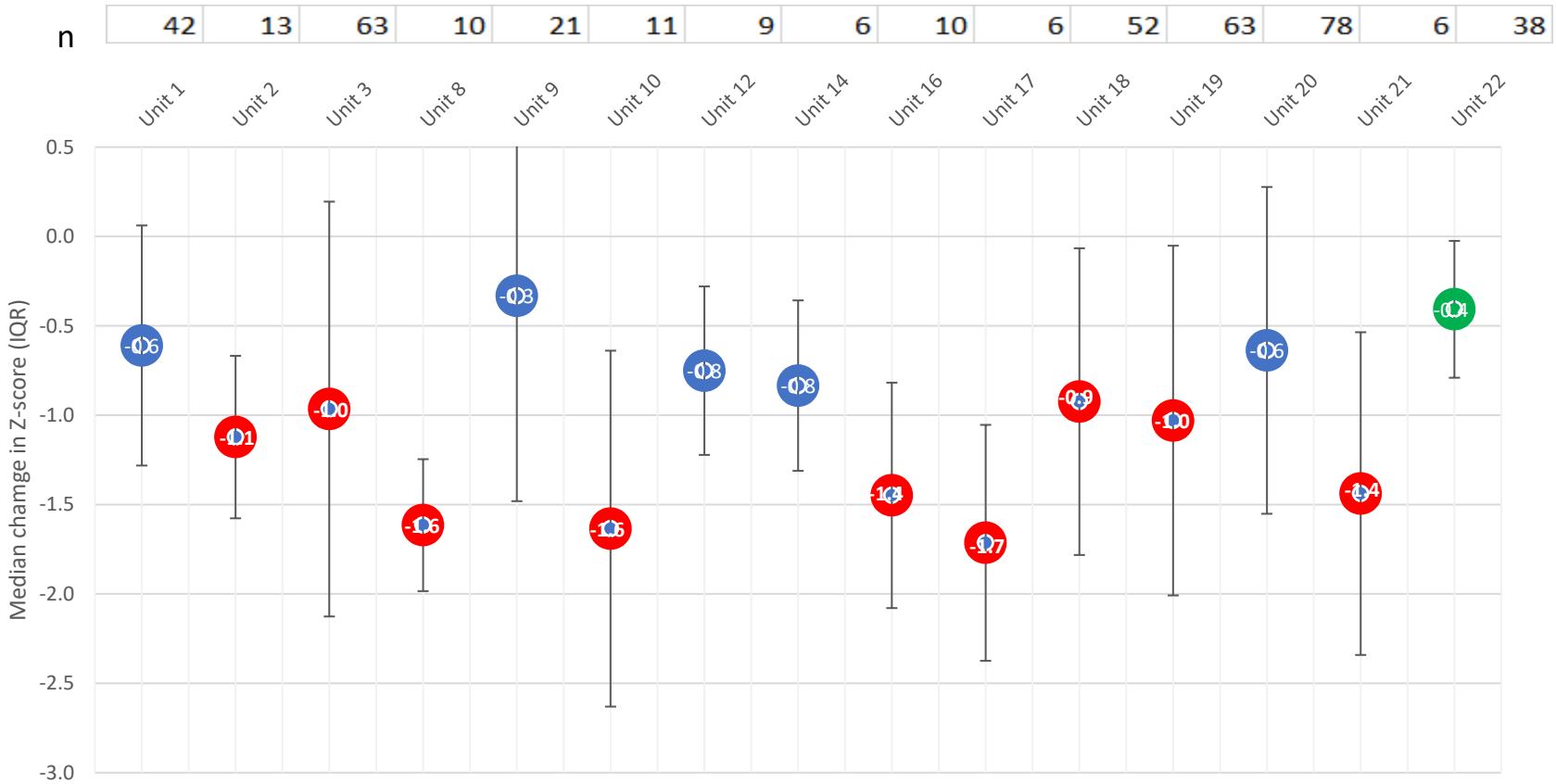
ODDS RATIO of Retinopathy of Prematurity (ROP) Stages ≥III or Death in infants with ≤ 32 weeks GA at birth (Table)

UNITS	OR	P value	CI 95%
Unit 1	6.5	0.134	0.6 - 74.1
Unit 2	10.6	0.061	0.9 - 125.1
Unit 3	5.2	0.168	0.5 - 54.3
Unit 8	2.2	0.618	0.1 - 52.6
Unit 9	8.6	0.087	0.7 - 101.1
Unit 10	15.5	0.038	1.2 - 205.4
Unit 12	10.4	0.101	0.6 - 171.1
Unit 14	3.6	0.370	0.2 - 61.1
Unit 16	1.0		
Unit 17	4.2	0.275	0.3 - 54.0
Unit 18	7.7	0.086	0.7 - 80.4
Unit 19	8.3	0.071	0.8 - 83.4
Unit 20	11.4	0.040	1.1 - 116.0
Unit 21	31.3	0.009	2.4 - 408.3
Unit 22	6.3	0.143	0.5 - 73.5
Reference	16		

Statistically significant p values are marked in red. The statistics should be interpreted with caution due to the small number of infants in some units and very large CI.

PRESENTATION 51

Median change in Weight Z-SCORE in preterm babies ≤ 34 weeks GA between birthweight and weight at discharge, using Fenton 2013 curves



Interquartile ranges (IQR). The median weight Z-score change is the difference between birthweight Z-score and weight Z-score at discharge. The further from "0" the greater the fall. The units were compared by median nonparametric regression adjusted for gestational age at birth and SNAPEPE II. In green referent unit with the lowest change and in red units statistically significantly different. The ranges have wide variability. The statistics should be interpreted with caution due to the small number of infants in some units. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year. n=number of cases.

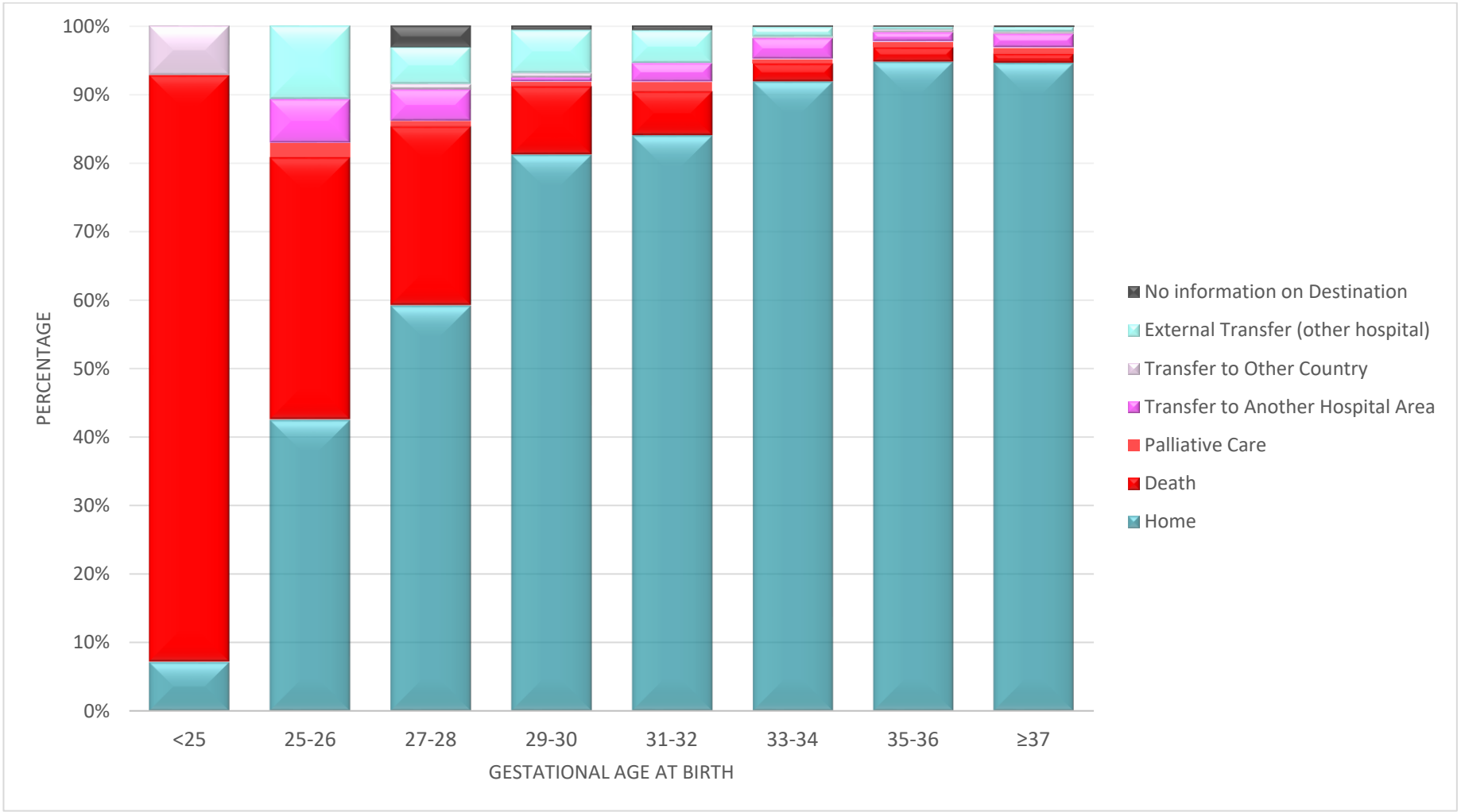
UNITS	Patients discharged < 34x GA	Median change in Z-score	Median Z-score at Birth	Median Z-score at discharge	P*
Unit 1	42	-0.6	0.1	-0.6	0.309
Unit 2	13	-1.1	0.1	-1.0	**0.017**
Unit 3	63	-1.0	0.1	-0.9	**0.006**
Unit 8	10	-1.6	-0.8	-2.5	**0.000**
Unit 9	21	-0.3	-0.4	-0.7	0.678
Unit 10	11	-1.6	-0.3	-2.0	**0.000**
Unit 12	9	-0.8	0.2	-0.5	0.358
Unit 14	6	-0.8	0.1	-0.5	0.264
Unit 16	10	-1.4	0.4	-1.1	**0.001**
Unit 17	6	-1.7	-0.2	-1.9	**0.001**
Unit 18	52	-0.9	-0.2	-1.0	**0.004**
Unit 19	63	-1.0	-0.3	-1.4	**0.000**
Unit 20	78	-0.6	-0.2	-0.7	0.309
Unit 21	6	-1.4	-0.2	-1.8	**0.000**
Unit 22	38	-0.4	-0.2	-0.6	**Reference**

Comment: only patients with complete information discharged home were included. The Z-score at birth and at discharge was calculated and the median difference for each NICU was determined. The units were compared using a median regression controlled by Gestational Age. The statistics should be interpreted with caution due to the small number of infants in some units. Statistically significant p values are marked in bold.

D. CONDITIONS AND DISCHARGE DESTINATION

PRESENTATION 52

Destination at discharge (All Patients*) (graph)



Destination at discharge (All Patients*) (table)

Gestational Age (weeks)		Home	Death	Palliative Care	Transfer to Another Hospital Area	Transfer to Other Country	External Transfer (other hospital)	No information on Destination	Total
<25	n	1	12	0	0	1	0	0	14
	%	7%	86%	0%	0%	7%	0%	0%	
25-26	n	20	18	1	3	0	5	0	47
	%	43%	38%	2%	6%	0%	11%	0%	
27-28	n	77	34	1	6	1	7	4	130
	%	59%	26%	1%	5%	1%	5%	3%	
29-30	n	130	16	1	1	1	10	1	160
	%	81%	10%	1%	1%	1%	6%	0.6%	
31-32	n	248	19	4	8	0	14	2	295
	%	84%	6%	1%	3%	0%	5%	0.7%	
33-34	n	456	13	3	15	1	7	1	496
	%	92%	3%	1%	3%	0%	1.4%	0.2%	
35-36	n	493	11	4	7	2	2	1	520
	%	95%	2%	1%	1%	0%	0.4%	0.2%	
≥37	n	1,698	24	15	36	5	12	4	1,794
	%	95%	1%	1%	2%	0%	1%	0.2%	
Total	n	3,123	147	29	76	11	57	13	3,456
	%	90%	4%	1%	2%	0.3%	2%	0.4%	

Readmissions are excluded.

Comment: only patients with complete information are included (validated). The statistics should be interpreted with caution due to the small number of infants in some units.

PRESENTATION 53

Support at discharge in survivors (table)

Total Patients		<25	25-26	27-28	29-30	31-32	33-34	35-36	≥37	Total
	n	2	29	96	144	276	483	509	1770	3309
Oxygen	n	1	10	40	52	67	94	48	107	419
	%	50%	34%	42%	36%	24%	19%	9%	6%	13%
Gastrostomy	n	0	0	1	1	1	2	1	5	11
	%	0%	0%	1%	1%	0%	0%	0%	0%	0%
Monitor	n	0	2	3	6	8	4	2	9	34
	%	0%	7%	3%	4%	3%	1%	0%	1%	1%
Gavage	n	2	0	3	4	6	1	4	14	34
	%	100%	0%	3%	3%	2%	0%	1%	1%	1%
Ostomies	n	0	0	1	2	1	0	1	5	10
	%	0%	0%	1%	1%	0%	0%	0%	0%	0%
Ventilation	n	0	3	4	3	11	2	2	6	31
	%	0%	10%	4%	2%	4%	0%	0%	0%	1%
CPAP	n	0	1	1	4	3	2	0	2	13
	%	0%	3%	1%	3%	1%	0%	0%	0%	0%
Human Milk	n	1	22	73	123	223	442	460	1657	3001
	%	50%	76%	76%	85%	81%	92%	90%	94%	91%
Formula	n	2	21	68	92	147	190	162	377	1059
	%	100%	72%	71%	64%	53%	39%	32%	21%	32%

Survivors include transfers in and out. No readmissions were included. Statistics should be interpreted with caution due to the small number of infants in some units. Patients could receive more than one item.

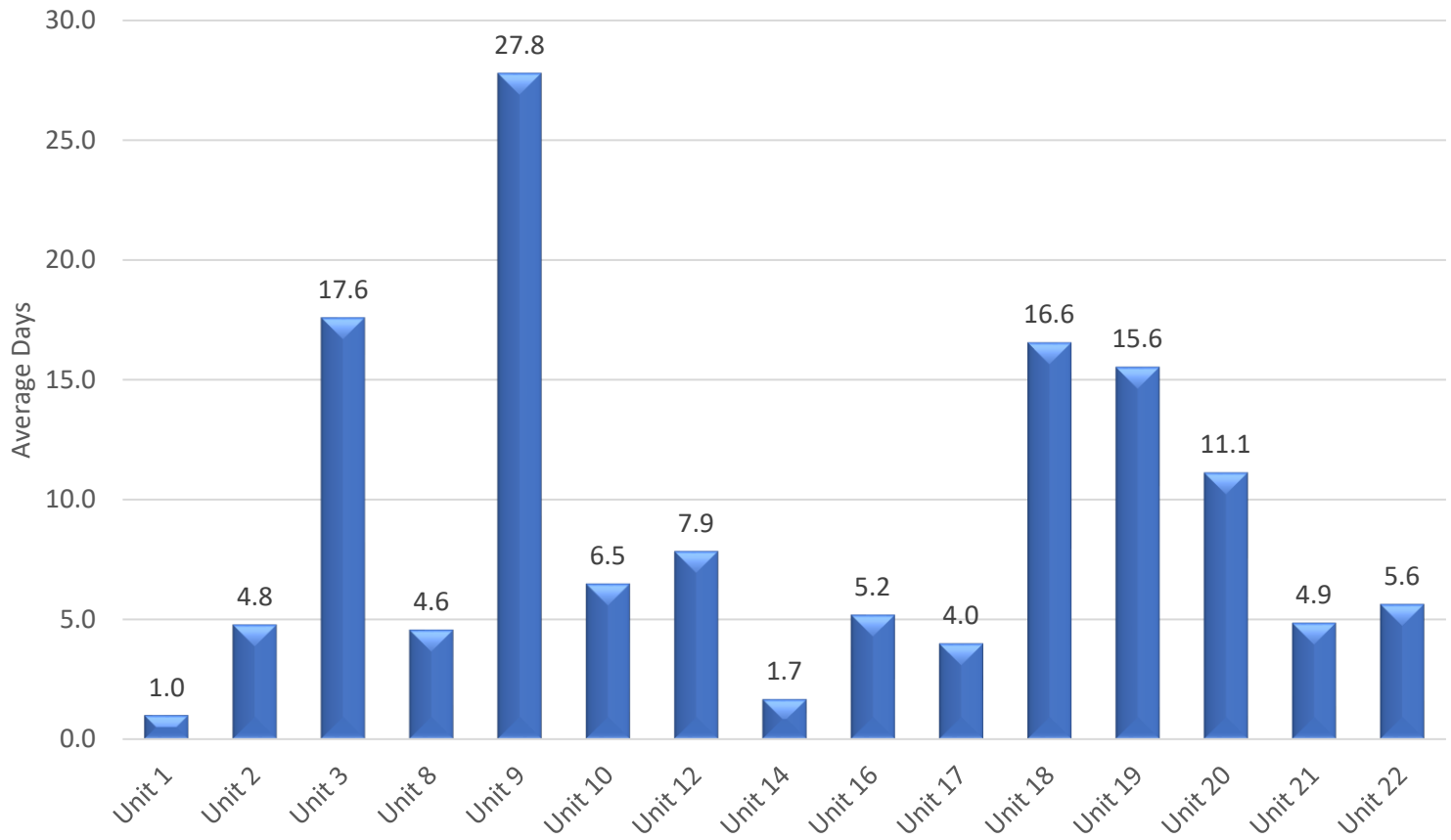
Comment: only patients with complete information for analysis were included (validated). No patients who died in the delivery room or moribund at admission were included.

E. SUPPORT AND HOSPITALIZATION DURATION

It is based on the number of infants ≤ 32 weeks at birth and discharged from the network units (data on infants is not available after being transferred to other institutions).

PRESENTATION 54

Invasive mechanical ventilation days (in infants Gestational Age ≤ 32 weeks)



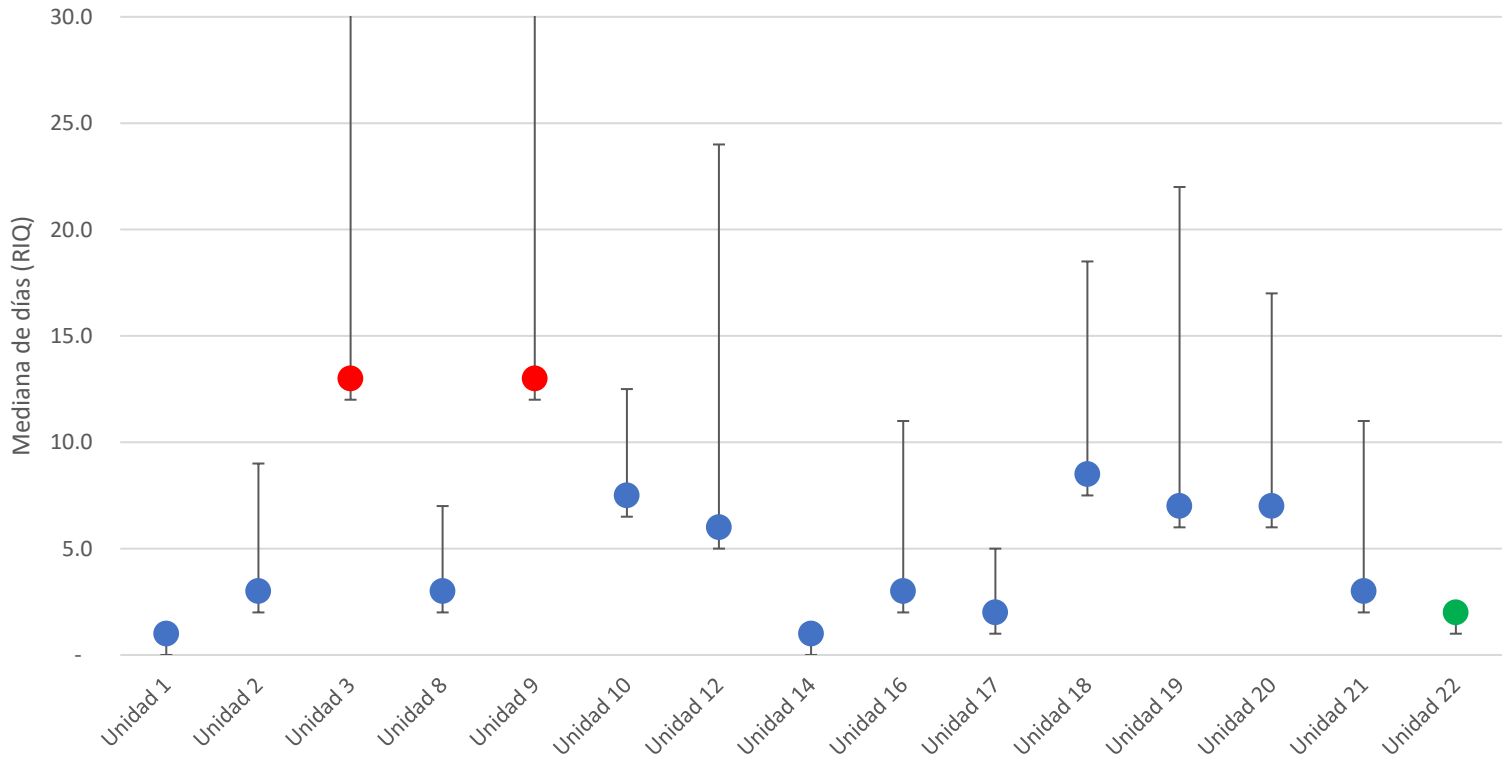
Invasive mechanical ventilation days (in infants Gestational Age ≤ 32 weeks) cont…

UNITS	Patients		Invasive Ventilation (days)				
	Ventilated Patients	Average number of days	Total Days	HFOV		Conventional	
	n		n	n	%	n	%
Unit 1	1	1.0	1	0	0%	1	100%
Unit 2	14	4.8	67	6	9%	61	91%
Unit 3	65	17.6	1145	13	1%	1132	99%
Unit 8	7	4.6	32	14	44%	18	56%
Unit 9	26	27.8	723	55	8%	668	92%
Unit 10	4	6.5	26	2	8%	24	92%
Unit 12	7	7.9	55	30	55%	25	45%
Unit 14	12	1.7	20	4	20%	16	80%
Unit 16	5	5.2	26	0	0%	26	100%
Unit 17	12	4.0	48	23	48%	25	52%
Unit 18	42	16.6	696	17	2%	679	98%
Unit 19	69	15.6	1073	68	6%	1005	94%
Unit 20	35	11.1	390	390	100%	0	0%
Unit 21	7	4.9	34	0	0%	34	100%
Unit 22	14	5.6	79	20	25%	59	75%
Total	320	13.4	4415	642	15%	3773	85%

Comment: only patients with complete information were included. Invasive mechanical ventilation includes patients with High Frequency Ventilation (HFOV) and intermittent positive pressure ventilation (IPPV). Mortality significantly affects the groups with low gestational age. Only patients with invasive mechanical ventilation were included. The statistics should be interpreted with caution due to the small number of infants in some units. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

PRESENTATION 55

Median Regression days in Invasive Mechanical Ventilation (in infants Gestational Age <33 weeks) Adjusted by Gestational Age at birth and SNAPEPEII. by Unit



Median [IQR] (interquartile range) days of invasive mechanical ventilation and interquartile ranges. The units were compared by median nonparametric regression adjusted for gestational age at birth. In red the unit with statistically significant difference and in green the reference unit (Unit 22) for having the lowest median in the group with enough patients. The statistics should be interpreted with caution due to the small number of infants in some units and large intervals. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

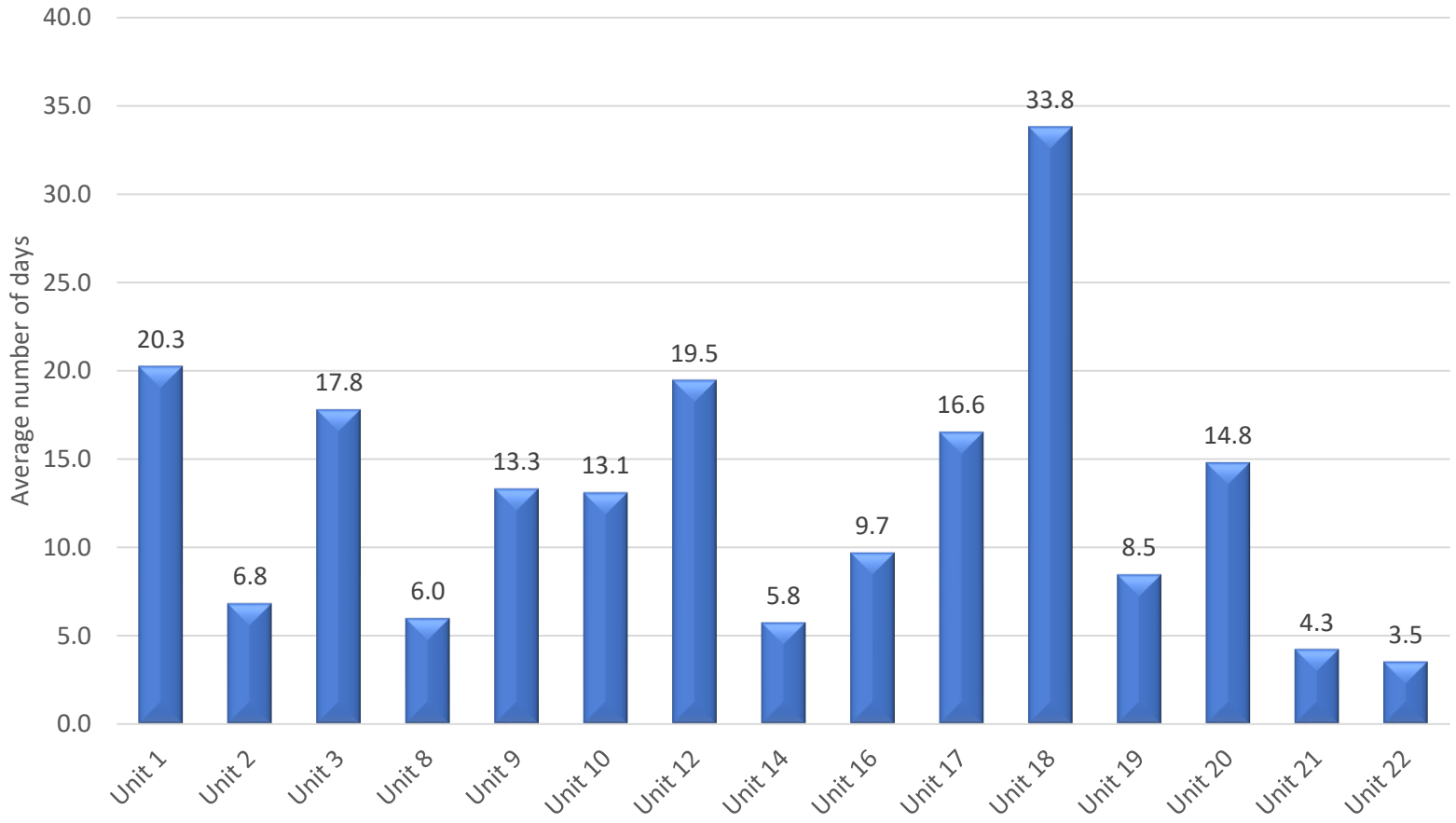
Median Days Regression in Invasive Mechanical Ventilation (in infants Gestational Age ≤ 32 weeks) Adjusted by Gestational Age at birth. Comparison by Units. Cont…

UNITS	N	p50	p25	p75	p
Unit 1	1	1.0	1.0	1.0	0.952
Unit 2	14	3.0	3.0	3.0	0.399
Unit 3	65	13.0	13.0	13.0	**0.046**
Unit 8	7	3.0	3.0	3.0	0.947
Unit 9	26	13.0	13.0	13.0	**0.007**
Unit 10	4	7.5	7.5	7.5	0.701
Unit 12	7	6.0	6.0	6.0	0.503
Unit 14	12	1.0	1.0	1.0	0.874
Unit 16	5	3.0	3.0	3.0	0.952
Unit 17	12	2.0	2.0	2.0	0.958
Unit 18	42	8.5	8.5	8.5	0.190
Unit 19	69	7.0	7.0	7.0	0.191
Unit 20	35	7.0	7.0	7.0	0.114
Unit 21	7	3.0	3.0	3.0	0.529
Unit 22	14	2.0	2.0	2.0	ref

Statistically significant p values are marked in bold.

PRESENTATION 56

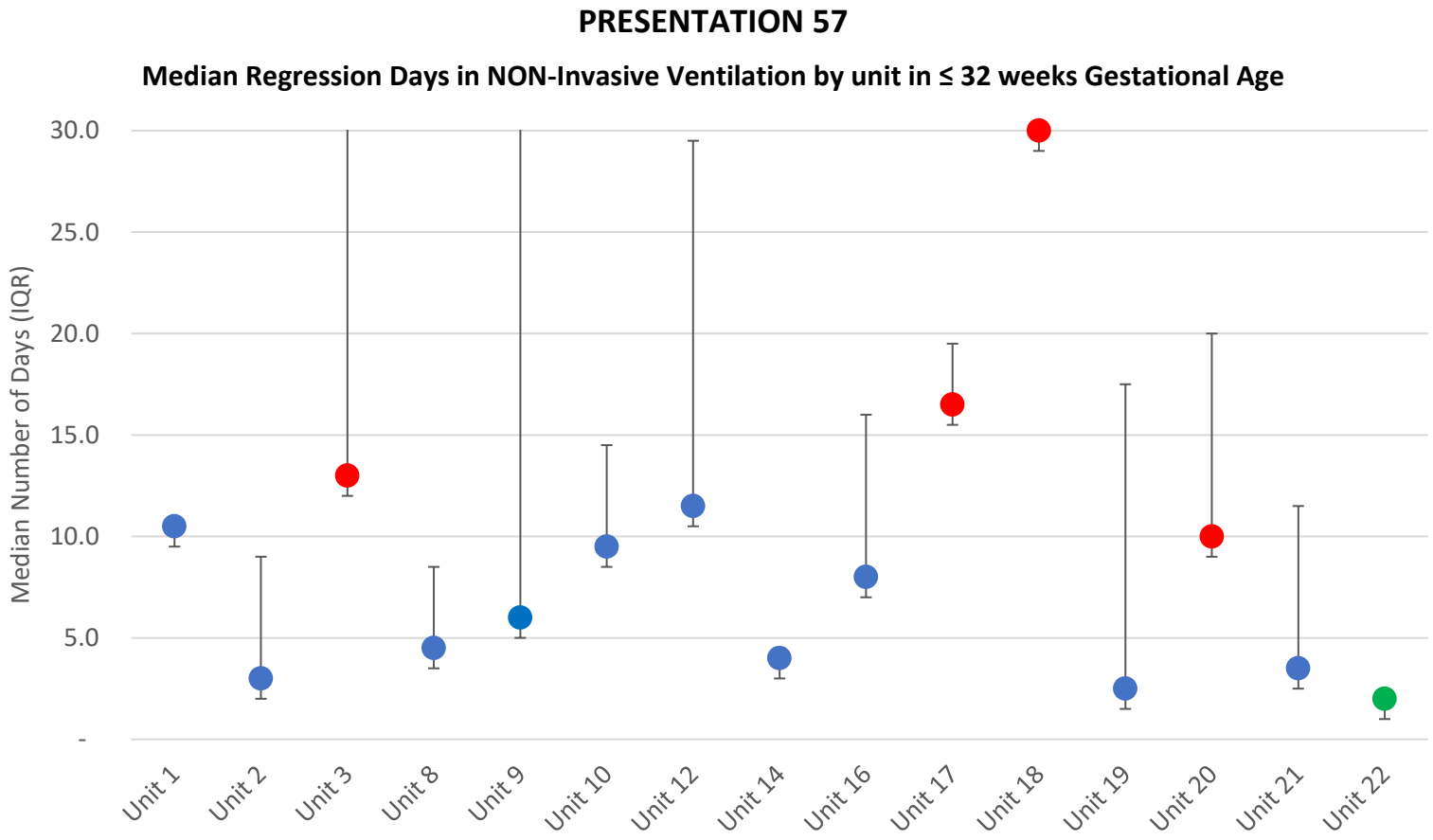
Average NON-Invasive Ventilation Days by Unit in ≤ 32 weeks Gestational Age



Average NON-Invasive Ventilation Days by Unit in ≤ 32 weeks Gestational Age (table)

UNITS	Patients		NON-Invasive Ventilation (days)						
	Ventilated Patients	Average number of days	Total Days	VNI (with Frequency)		CPAP		High Flow nasal canula	
	n		n	n	%	n	%	n	%
Unit 1	38	20.3	771	140	18%	338	44%	293	38%
Unit 2	19	6.8	130	29	22%	41	32%	60	46%
Unit 3	65	17.8	1159	3	0%	1095	94%	61	5%
Unit 8	12	6.0	72	39	54%	14	19%	19	26%
Unit 9	26	13.3	331	151	46%	139	42%	41	12%
Unit 10	8	13.1	105	66	63%	39	37%	0	0%
Unit 12	12	19.5	234	0	0%	141	60%	93	40%
Unit 14	17	5.8	98	20	20%	66	67%	12	12%
Unit 16	11	9.7	107	47	44%	49	46%	11	10%
Unit 17	16	16.6	265	19	7%	18	7%	228	86%
Unit 18	63	33.8	2131	1871	88%	260	12%	0	0%
Unit 19	64	8.5	543	70	13%	111	20%	362	67%
Unit 20	85	14.8	1261	2	0%	1021	81%	238	19%
Unit 21	8	4.3	34	31	91%	3	9%	0	0%
Unit 22	22	3.5	78	25	32%	44	56%	9	12%
Total	466	15.7	7319	2513	34%	3379	46%	1427	19%

Comment: only patients with complete information were included. NON-Invasive Ventilation includes CPAP, non-invasive ventilation with frequency and high flow nasal cannula. Patients with only oxygen or low-flow cannula were excluded. The statistics should be interpreted with caution due to the small number of infants in some units. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.



Median ±IQR (interquartile range) days of non-invasive ventilation and interquartile ranges. The units were compared by median nonparametric regression adjusted for gestational age at birth. In red the units with statistically significant difference and in green the reference unit (Unit 22 for having the lowest median between units with adequate number of patients). Statistics are dependent on the number of patients and should be interpreted with caution due to the small number of infants in some units and large interquartile ranges.

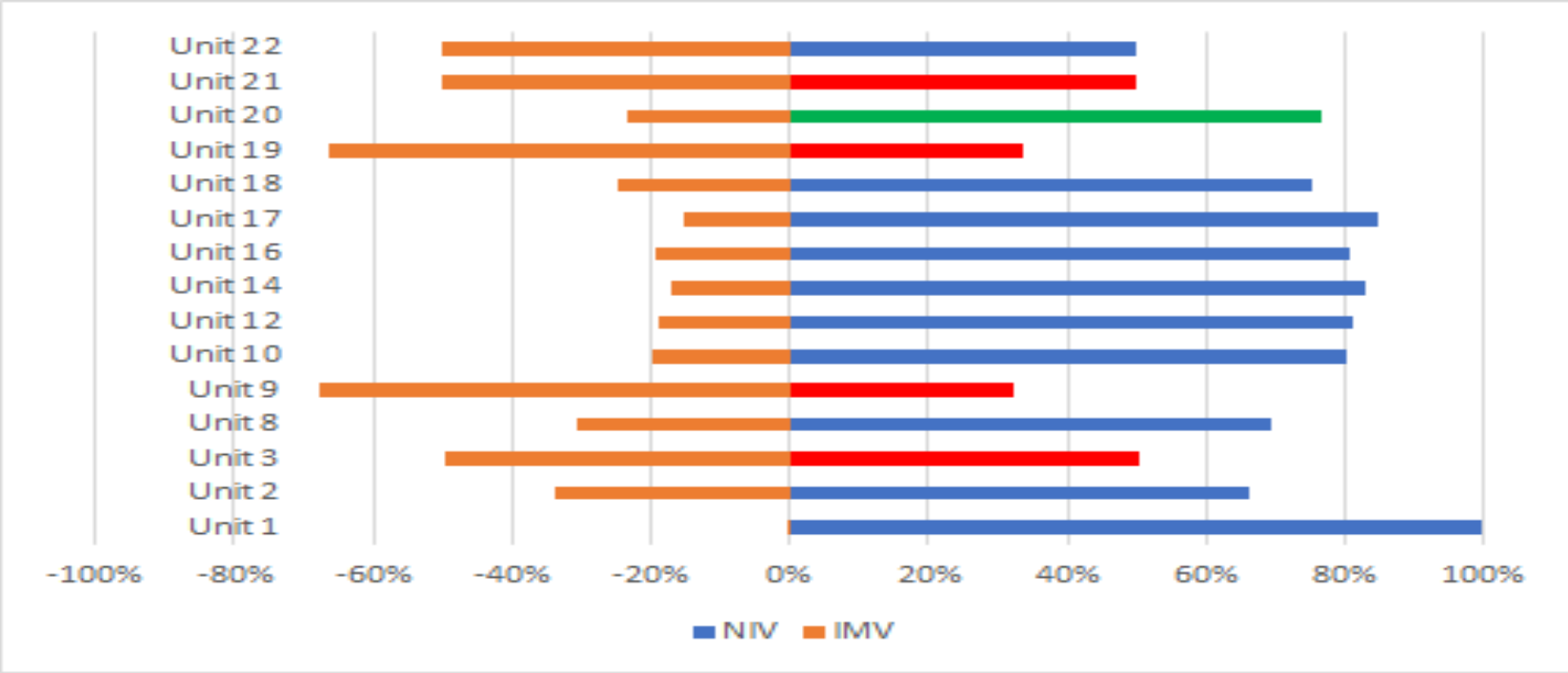
Median Days of NON-Invasive Ventilation by unit in ≤ 32 weeks Gestational Age, (table)

UNITS	N	p50	p25	p75	p
Unit 1	38	10.5	3.0	33.0	0.079
Unit 2	19	3.0	2.0	6.0	0.341
Unit 3	65	13.0	5.0	28.0	**0.027**
Unit 8	12	4.5	2.0	7.0	0.580
Unit 9	26	6.0	4.0	12.0	0.145
Unit 10	8	9.5	2.5	18.0	0.568
Unit 12	12	11.5	5.5	36.5	0.137
Unit 14	17	4.0	2.0	8.0	0.357
Unit 16	11	8.0	2.0	15.0	0.298
Unit 17	16	16.5	10.0	24.5	**0.016**
Unit 18	63	30.0	16.0	51.0	**0.000**
Unit 19	64	2.5	1.0	8.0	0.340
Unit 20	85	10.0	4.0	23.0	**0.034**
Unit 21	8	3.5	2.0	6.0	0.568
Unit 22	22	2.0	1.0	5.0	**ref**

Statistically significant p values are marked in bold. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

PRESENTATION 58

Median of NON-Invasive Ventilation Days Over Invasive Ventilation Days by Unit in ≤ 32 weeks Gestational Age adjusted by GE and SPAPEPEII



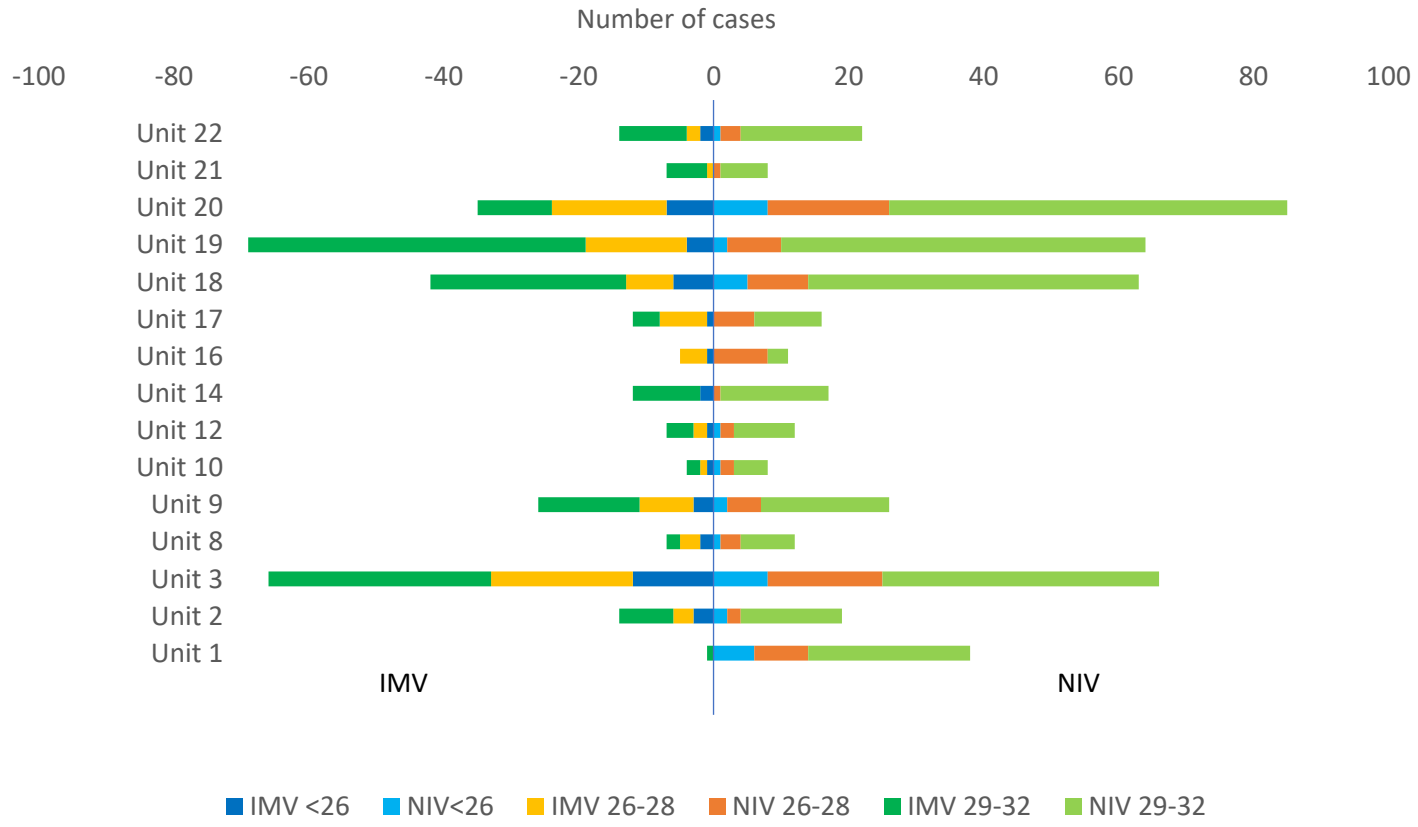
Median and IQR (interquartile range) of non-invasive over-invasive mechanical ventilation median (IMV in negative values for visual comparison). In red the units with significant differences with respect to unit 20 (reference in green) which was chosen for larger number of data and hay percentage of NIV. Differences was calculated with median logistic regression adjusted by Gestational Age and SPAPEPII. Invasive ventilation includes HFOV and IPPV and NON-Invasive ventilation includes CPAP, NIVn (nasal non-invasive ventilation) and high-flow cannulas. The statistics should be interpreted with caution due to the small number of infants in some units and large Median ranges. NON-Invasive Ventilation Days Over Invasive Ventilation Days by Unit in < 33 weeks Gestational Age

UNITS	VNI	IMV	p
Unit 1	771	1	0.321
Unit 2	130	67	0.282
Unit 3	1175	1153	**0.000**
Unit 8	72	32	0.519
Unit 9	347	723	**0.000**
Unit 10	105	26	1.000
Unit 12	234	55	0.747
Unit 14	98	20	0.640
Unit 16	107	26	0.314
Unit 17	265	48	0.397
Unit 18	2131	696	0.227
Unit 19	543	1073	**0.000**
Unit 20	1261	390	fef
Unit 21	34	34	**0.000**
Unit 22	78	79	0.382

Statistically significant p values are marked in bold. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

PRESENTATION 59

Percentage of Number of cases in NON-Invasive ventilation compare with cases in invasive mechanical ventilation by unit and by Gestational Age groups in ≤ 32 weeks Gestational Age (Graph)



Number of cases of non-invasive ventilation (NIV) contrasted with invasive ventilation (IMV) (negative values to appreciate difference) in the different units in three gestational age groups. Only patients on ventilation with validated complete data were included.

IMV includes HFOV and Conventional and NIV includes CPAP, NIV (non-invasive nasal ventilation), and high-flow cannulas.

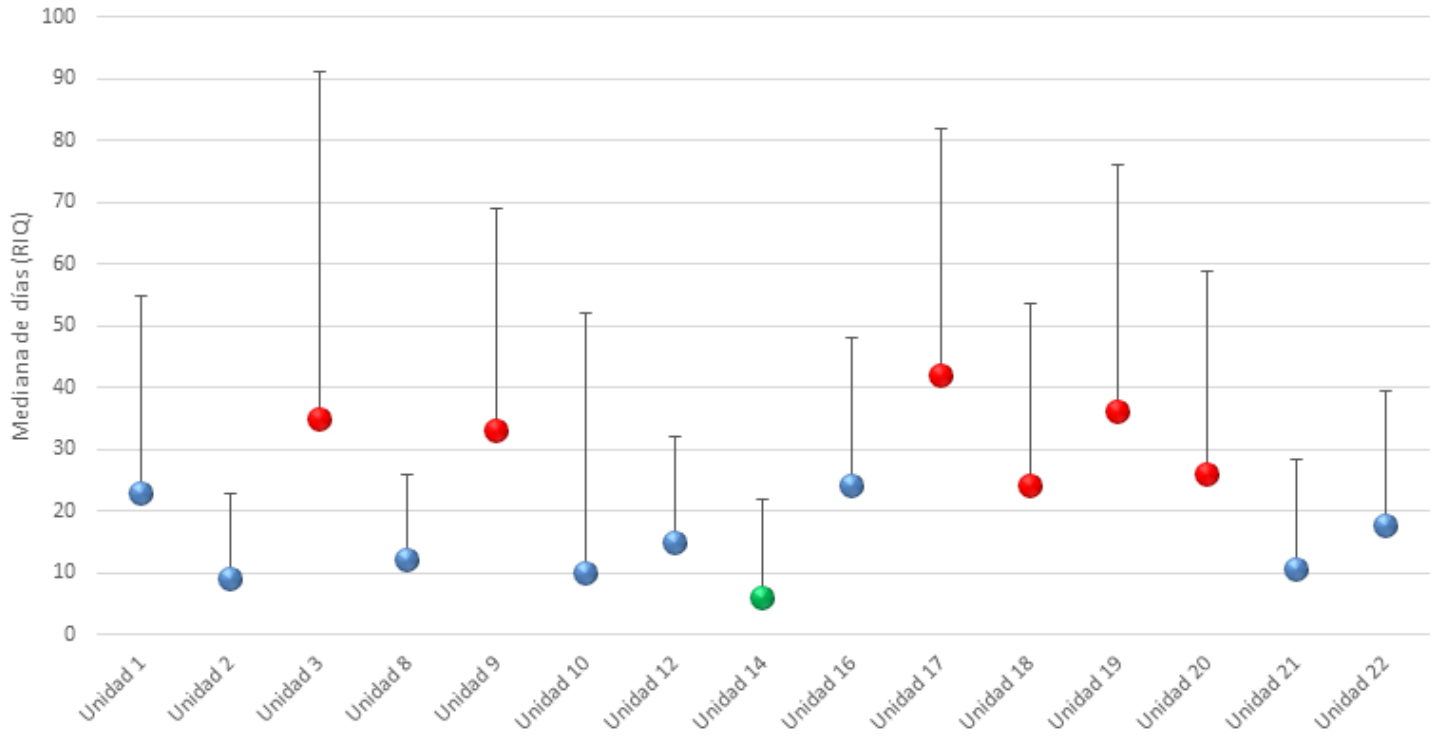
Number of cases of NON-Invasive ventilation and invasive mechanical ventilation by unit and by Gestational Age groups in ≤ 32 weeks Gestational Age (Table)

	NIV (n)				IMV (n)			
	<26	26-28	29-30	Total	<26	26-28	29-30	Total
Unidad 1	6	8	24	38	0	0	1	1
Unidad 2	2	2	15	19	3	3	8	14
Unidad 3	8	17	41	66	12	21	33	66
Unidad 8	1	3	8	12	2	3	2	7
Unidad 9	2	5	19	26	3	8	15	26
Unidad 10	1	2	5	8	1	1	2	4
Unidad 12	1	2	9	12	1	2	4	7
Unidad 14	0	1	16	17	2	0	10	12
Unidad 16	0	8	3	11	1	4	0	5
Unidad 17	0	6	10	16	1	7	4	12
Unidad 18	5	9	49	63	6	7	29	42
Unidad 19	2	8	54	64	4	15	50	69
Unidad 20	8	18	59	85	7	17	11	35
Unidad 21	0	1	7	8	0	1	6	7
Unidad 22	1	3	18	22	2	2	10	14
Total	37	93	337	467	45	91	185	321

Number of cases of non-invasive ventilation (NIV) and invasive ventilation (IMV)

PRESENTATION 60

Median and IQR Days with Catheter (in infants Gestational Age ≤ 32 weeks) by Unit.



Median ±IQR (interquartile range) days with catheter. The units were compared by median nonparametric regression adjusted for gestational age at birth and SNAPEPEII. In red the units with statistically significant difference and only babies with at least 1 day of catheter were included. Unit 1 was chosen as the reference for low median, adequate number of infants and narrower ranges in green. Includes arterial and venous umbilical catheters, PICC catheters, arterial lines, surgical lines, and peripheral lines. Statistics are dependent on the number of patients and should be interpreted with caution due to the small number of infants in some units and large interquartile ranges. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

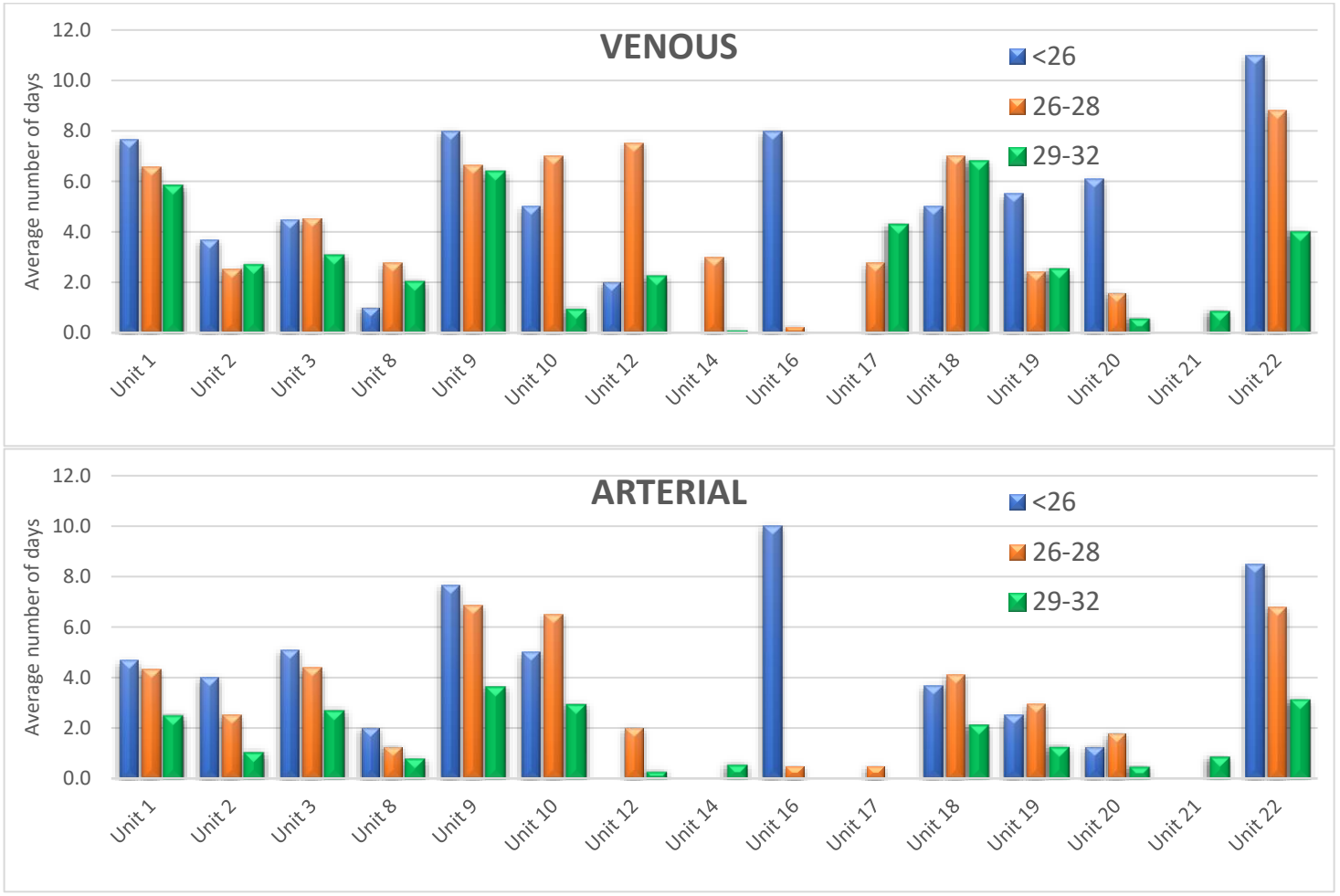
Median Number of Days with Catheter (in infants Gestational Age ≤ 32 weeks) by Unit. (Table)

UNITS	Number of Patients	Total number of days	Days			
	n		p50	p25	p75	p
Unidad 1	39	1575	23	48	16	0.060
Unidad 2	22	417	9	19	5	0.954
Unidad 3	80	3709	35	71	15	**0.001**
Unidad 8	14	263	12	22	8	0.914
Unidad 9	31	1416	33	57	21	**0.001**
Unidad 10	14	430	10	46	4	0.892
Unidad 12	12	262	15	26	9	0.896
Unidad 14	22	242	6	18	2	Ref
Unidad 16	13	243	24	28	4	0.441
Unidad 17	21	750	42	52	12	0.002
Unidad 18	72	2530	24	46	16.5	0.023
Unidad 19	83	4225	36	62	22	0.000
Unidad 20	90	3313	26	50	17	0.032
Unidad 21	12	164	10.5	22	4	0.888
Unidad 22	30	638	17.5	30	8	0.298
Total	555	20177	26	48	14	

Statistically significant p values are marked in bold.

PRESENTATION 61

Median Days with Arterial and Venous Umbilical Catheter (in Children with Gestational Age ≤ 32 Weeks) by gestational age groups and units



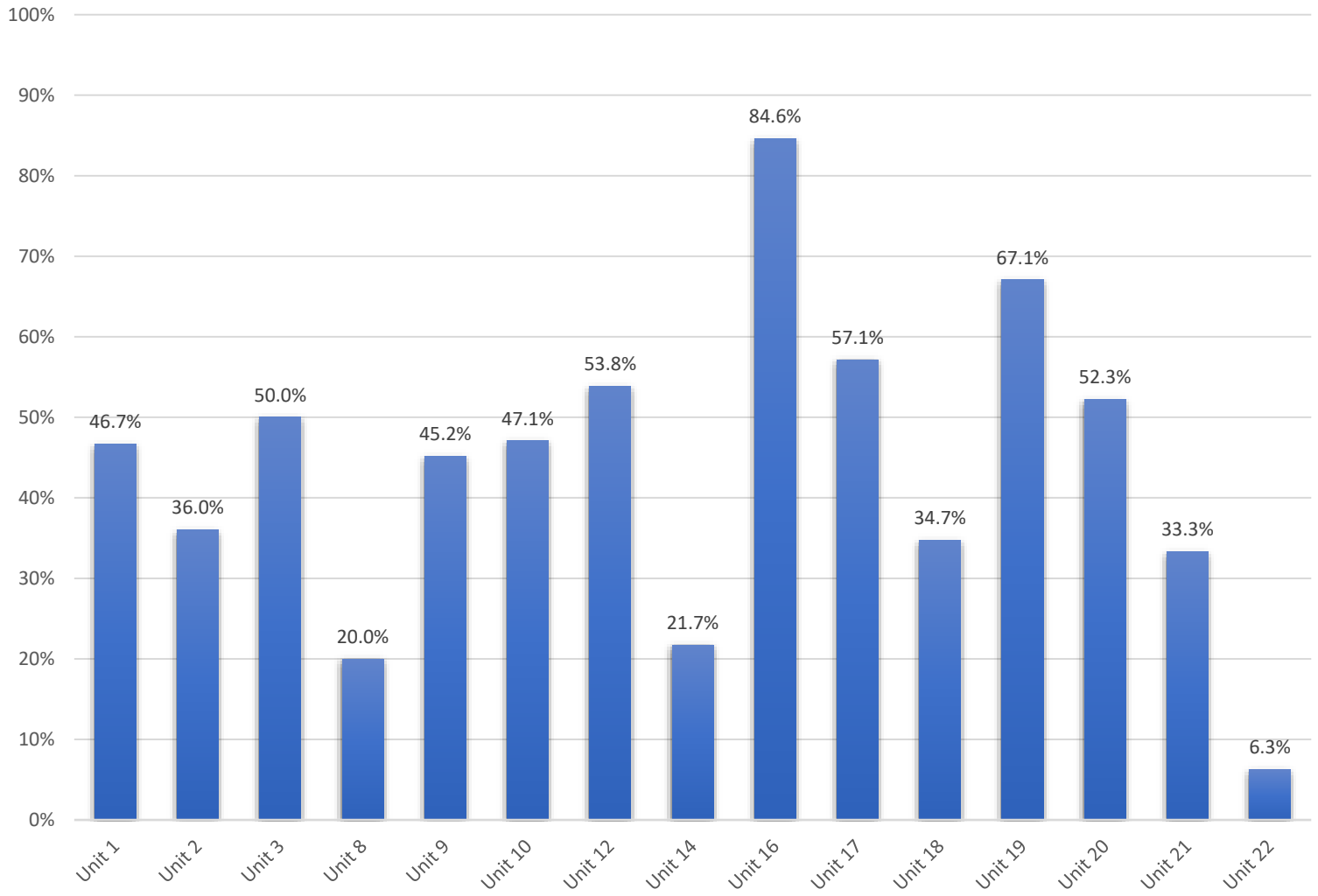
Median Days with Arterial and Venous Umbilical Catheter (in Children with Gestational Age ≤ 32 Weeks) by gestational age groups and units (TABLE)

UNITS	MEDIAN DAYS WITH CATHETER											
	VENOUS CATHETER						ARTERIAL CATHETER					
	<26		26-28		29-32		<26		26-28		29-32	
	n	average	n	average	n	average	n	average	n	average	n	average
Unit 1	6	7.7	9	6.6	24	5.8	6	4.7	9	4.3	24	2.5
Unit 2	3	3.7	4	2.5	15	2.7	3	4.0	4	2.5	15	1.0
Unit 3	13	4.5	21	4.5	46	3.0	13	5.1	21	4.4	46	2.7
Unit 8	2	1.0	4	2.8	8	2.0	2	2.0	4	1.3	8	0.8
Unit 9	3	8.0	8	6.6	20	6.4	3	7.7	8	6.9	20	3.6
Unit 10	2	5.0	2	7.0	10	0.9	2	5.0	2	6.5	10	2.9
Unit 12	1	2.0	2	7.5	9	2.2	1	0.0	2	2.0	9	0.2
Unit 14	1	0.0	1	3.0	20	0.1	1	0.0	1	0.0	20	0.5
Unit 16	1	8.0	8	0.3	4	0.0	1	10.0	8	0.5	4	0.0
Unit 17	1	0.0	8	2.8	12	4.3	1	0.0	8	0.5	12	0.0
Unit 18	6	5.0	9	7.0	57	6.8	6	3.7	9	4.1	57	2.1
Unit 19	4	5.5	15	2.4	64	2.5	4	2.5	15	2.9	64	1.2
Unit 20	12	6.1	26	1.6	52	0.5	12	1.3	26	1.8	52	0.4
Unit 21	0	0.0	1	0.0	11	0.8	0	0.0	1	0.0	11	0.8
Unit 22	2	11.0	5	8.8	23	4.0	2	8.5	5	6.8	23	3.1
Total/average	57	5.4	123	3.8	375	3.2	57	3.8	123	3.1	375	1.6

Comment: Median days with catheter. Only patients with complete data with at least 1 catheter day were included. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

PRESENTATION 62

Percentage of Transfused Patients with Packed Read Blood Cells (in infants ≤ 32 weeks Gestational Age) by Unit



All patients <33 weeks gestational age at birth were included. Number of packed red blood cell (RBC) transfusion as well as number of infants transfused were recorded. Statistics are dependent on the number of patients and should be interpreted with caution due to the small number of infants in some units. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

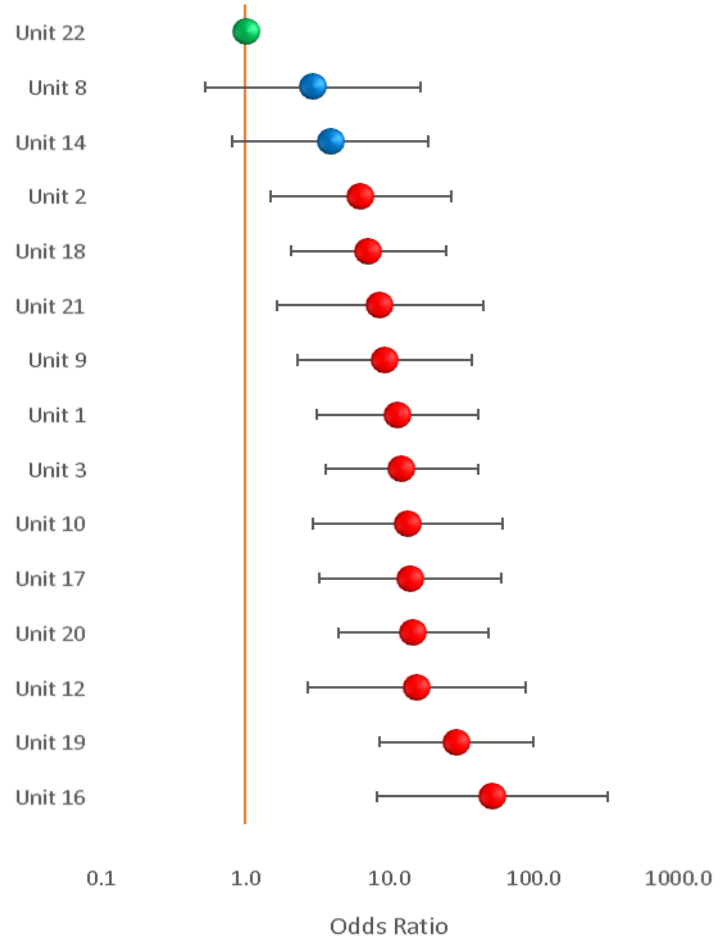
Transfusions (in infants Gestational Age ≤ 32 weeks) by Unit (TABLE)

UNITS	Patients < 33 weeks Gestational Age	Number of Patient Transfused	Number of transfusions	Percentage of transfused patient	Number or transfusion per patient
Unit 1	45	21	93	47%	4
Unit 2	25	9	20	36%	2.2
Unit 3	86	43	99	50%	2.3
Unit 8	15	3	9	20%	3.0
Unit 9	31	14	34	45%	2.4
Unit 10	17	8	14	47%	1.8
Unit 12	13	7	15	54%	2.1
Unit 14	23	5	9	22%	1.8
Unit 16	13	11	26	85%	2.4
Unit 17	21	12	20	57%	1.7
Unit 18	72	25	44	35%	1.8
Unit 19	85	57	241	67%	4.2
Unit 20	111	58	123	52%	2.1
Unit 21	12	4	5	33%	1.3
Unit 22	48	3	3	6%	1.0
TOTAL	617	280	755	42%	2.7

All patients ≤ 32 weeks gestational age at birth were included. Number of packed red blood cell (RBC) transfusion as well as number of infants transfused were recorded. Statistics are dependent on the number of patients and should be interpreted with caution due to the small number of infants in some units.

PRESENTATION 63

Odds Ratio ± CI 95% of the number of Transfused Infants ≤ 32 weeks Gestational Age at Birth in each unit controlled by SNAPEPE II and Gestational Age (incremental graph with log scale)



Odd Ratio ± 95% CI ordered in ascending order. All infants ≤ 32 weeks gestational age are included. Unit 22 in green was chosen as reference due to the lower incidence of transfusion with enough infants. The units with statistically significant difference in red. The upper confidence intervals of some units are very large. Statistics are dependent on the number of patients and should be interpreted with caution due to the small number of infants in some units and intervals. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

Odds Ratio of the number of Transfused Infants ≤ 32 weeks Gestational Age at Birth in each unit controlled by SNAPEPE II and Gestational Age (incremental table)

UNITS	OR	P values	CI 95%
Unit 22	1.0	Ref	
Unit 8	2.9	0.223	0.5 - 16.4
Unit 14	3.9	0.089	0.8 - 18.3
Unit 2	6.3	**0.012**	1.5 - 26.5
Unit 18	7.1	**0.002**	2.1 - 24.5
Unit 21	8.5	**0.010**	1.7 - 44.0
Unit 9	9.2	**0.002**	2.3 - 36.9
Unit 1	11.2	**0.000**	3.1 - 40.8
Unit 3	12.1	**0.000**	3.6 - 40.7
Unit 10	13.3	**0.001**	2.9 - 60.4
Unit 17	13.8	**0.000**	3.3 - 58.7
Unit 20	14.5	**0.000**	4.4 - 48.0
Unit 12	15.3	**0.002**	2.7 - 87.4
Unit 19	28.8	**0.000**	8.4 - 98.9
Unit 16	51.4	**0.000**	8.2 - 322.8
Reference	22		

Statistically significant p values are marked in bold.

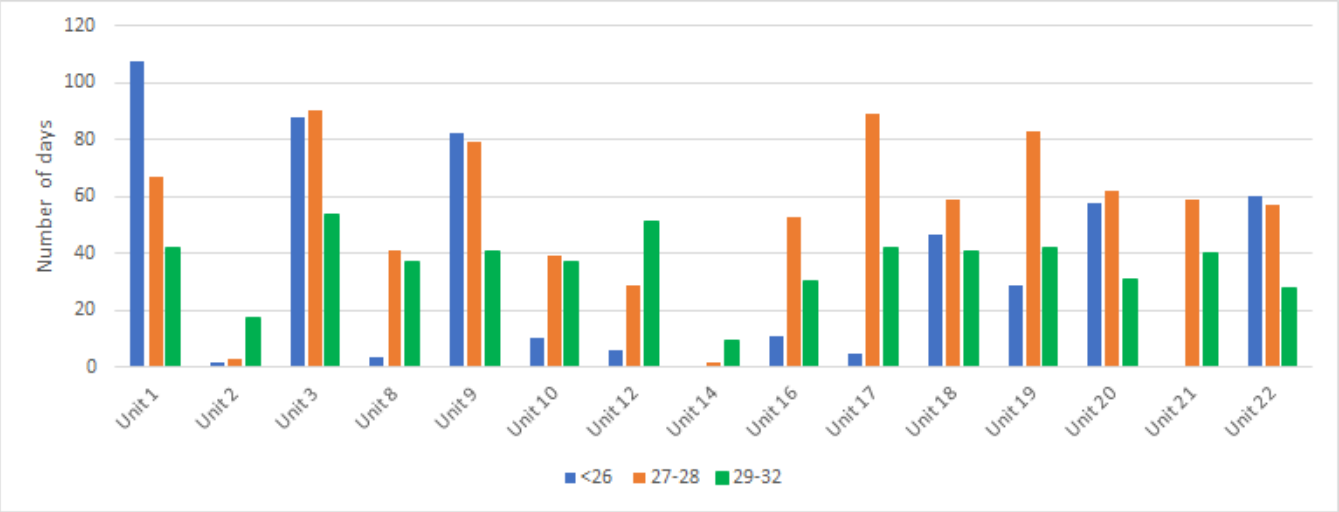
PRESENTATION 64

Days of in hospital Stay by Gestational Age Groups and by Unit (Gestational Age ≤ 32 Weeks)

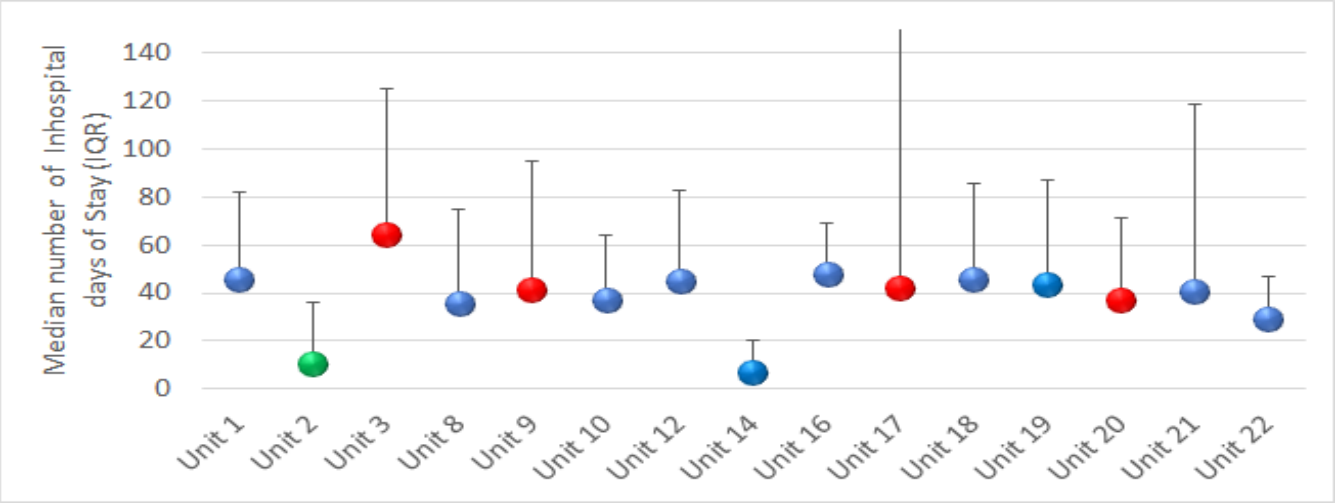
Unit	Gestational Age at Birth									p
	<26 sem			27-28			29-32			
	Patients	Total Days	Median	Patients	Total Days	Median	Patients	Total Days	Median	
Unit 1	6	579	107.5	9	494	67	30	1275	42	0.507
Unit 2	3	46	2	4	12	3	18	403	17.5	**0.039**
Unit 3	13	1446	88	23	2296	90	50	3807	53.5	**0.000**
Unit 8	2	7	3.5	5	163	41	8	265	37	0.499
Unit 9	3	430	82	8	495	79	20	964	41	**0.017**
Unit 10	2	21	10.5	2	79	39.5	13	448	37	0.902
Unit 12	1	6	6	2	57	28.5	10	485	51.5	0.835
Unit 14	2	1	0.5	1	2	2	20	471	9.5	**0.004**
Unit 16	1	11	11	8	432	53	4	114	30.5	0.727
Unit 17	1	5	5	8	1298	89	12	1275	42	**0.028**
Unit 18	6	325	46.5	9	541	59	57	2411	41	0.053
Unit 19	5	245	29	15	1138	83	65	3038	42	**0.010**
Unit 20	12	630	57.5	27	1497	62	72	2320	31	ref
Unit 21				1	59	59	11	732	40	0.491
Unit 22	2	120	60	5	220	57	41	1265	28	0.774
Total	59	3872	55	127	8783	62	431	19273	36	

IQR: interquartile Range. Comment: only patients with complete information discharge were included and readmissions were excluded. Mortality in low gestational ages may modify results.

Days of Stay by Gestational Age Groups and by unit in ≤ 32 Weeks



Median Number of in hospital Days of Stay by Gestational Age Groups and by Unit Adjusted by Gestational Age at birth and SPAPEPEII (Gestational Age ≤ 32 Weeks)



The units were compared by median nonparametric regression adjusted for gestational age at birth and SNAPEPEII. Unit 2 was chosen for the low median stay with enough cases (in green). Units with statistically significantly difference are shown in red. Interpret data cautiously in units with very wide interquartile (IQR) ranges some not shown.

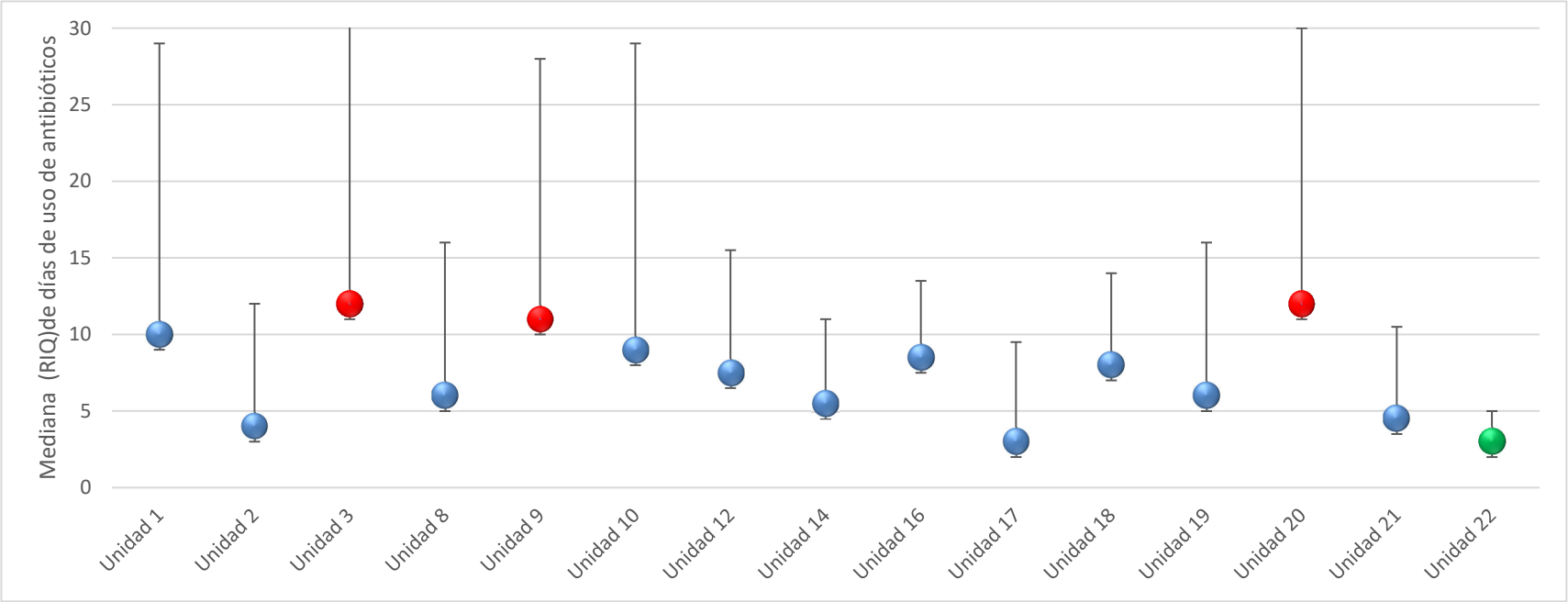
PRESENTATION 65

Days of ANTIBIOTICS in Infants < 33 weeks Gestational Age at birth, by Unit in 3 Gestational Age Groups

UNITS	Days of Antibiotics									Total
	<26 w			26-28w			29-32w			
	Total patients	Total Days	Number of days per patient	Total patients	Total Days	Number of days per patient	Total patients	Total Days	Number of days per patient	Days
Unit 1	6	196	33	9	90	10	30	250	8	536
Unit 2	3	27	9	4	13	3	18	124	7	164
Unit 3	13	208	16	23	477	21	50	712	14	1397
Unit 8	2	2	1	5	22	4	8	65	8	89
Unit 9	3	81	27	8	85	11	20	146	7	312
Unit 10	2	10	5	2	56	28	13	112	9	178
Unit 12	1	0	0	2	43	22	10	31	3	74
Unit 14	2	1	1	1	3	3	20	83	4	87
Unit 16	1	10	10	8	67	8	4	14	4	91
Unit 17	1	1	1	8	42	5	12	23	2	66
Unit 18	6	99	17	9	124	14	57	581	10	804
Unit 19	5	54	11	15	244	16	65	493	8	791
Unit 20	12	271	23	27	656	24	72	573	8	1500
Unit 21				1	10	10	11	31	3	41
Unit 22	2	21	11	5	9	2	41	32	1	62
TOTAL	59	981	17	127	1941	15	431	3270	8	6192

PRESENTATION 66

Median and Interquartile use of ANTIBIOTIC days in infants ≤ 32 weeks Gestational Age at birth by Unit controlled by Gestational Age and SNAPEPEII



Median days and IQR (interquartile range) of use of antibiotics. The units were compared by median nonparametric regression adjusted for gestational age at birth and SNAPEPEII. Reference unit 2 in green chosen for lower median and IQR with adequate number of patients. In red the units with statistically significant difference. Statistics are dependent on the number of patients and should be interpreted with caution due to the small number of infants in some units and large IQR. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

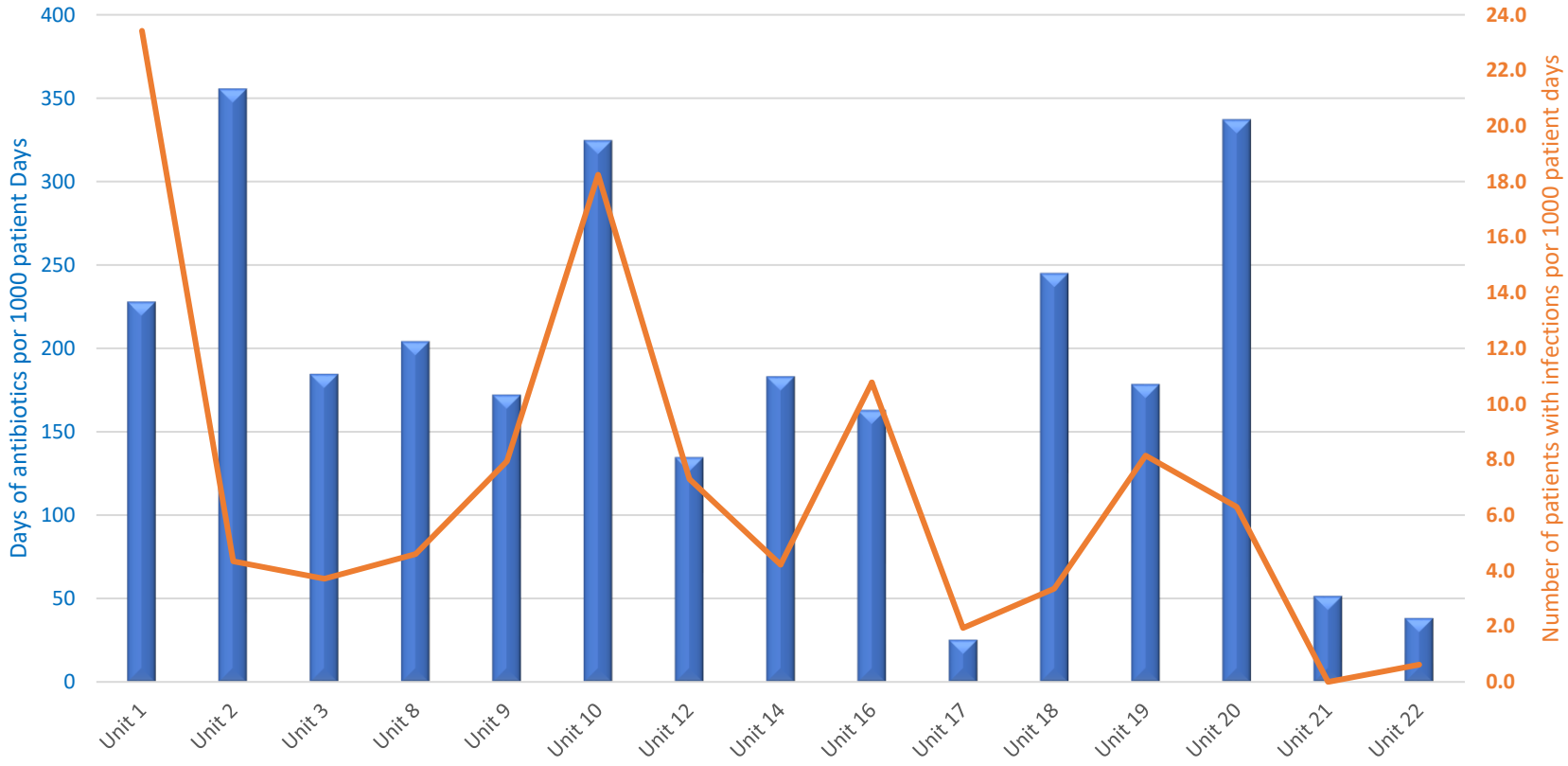
Antibiotics days in Infants ≤ 32 weeks Gestational Age at Birth, by Unit (Table)

UNITS	Number of antibiotic Days	Statistics of Days with Antibiotics			
		p50	p25	p75	p
Unit 1	39	10	2	21	0.054
Unit 2	23	4	2	10	0.569
Unit 3	79	12	4	27	**0.032**
Unit 8	9	6	4	14	0.342
Unit 9	21	11	4	21	**0.038**
Unit 10	12	9	4.5	24.5	0.065
Unit 12	6	7.5	5	13	0.242
Unit 14	16	5.5	2	7.5	0.535
Unit 16	10	8.5	7	12	0.292
Unit 17	12	3	2	8.5	0.753
Unit 18	71	8	7	13	0.056
Unit 19	67	6	3	13	0.234
Unit 20	87	12	5	23	**0.012**
Unit 21	8	4.5	2	8	0.453
Unit 22	15	3	2	4	**Ref**

The reference unit 22 was taken as the lowest median with an adequate number of patients. All patients with complete data were taken with at least 1 day of antibiotics. Statistically significant p values are marked in bold.

PRESENTATION 67

ANTIBIOTICS Use and Total Number of Infections x 1000 Days of stay in Infants ≤ 32 weeks Gestational Age at birth and discharged home by Unit



Infections are defined as positive blood or spinal fluid culture and antibiotics are used.

This Graph does not directly corelate antibiotic days and infections per 1000 days of stay, it just puts them on the same graph. It is striking one unit report 0 positive cultures but have a significant number of days of use of antibiotics per 1000 patient days. Infections in blood and CSF are counted separately. Units were excluded if they had ≤ 10 patients ≤ 32 weeks GA at birth during the year.

Antibiotic Use and Total Number of Infections x 1000 Days of stay in Infants ≤ 32 weeks Gestational Age at birth and Discharged home by Unit (table)

UNITS	Days de antibiotics x 1000 patient days	Total number of Infections x 1000 patient days
Unit 1	228	23.4
Unit 2	356	4.3
Unit 3	185	3.7
Unit 8	205	4.6
Unit 9	173	7.9
Unit 10	325	18.2
Unit 12	135	7.3
Unit 14	184	4.2
Unit 16	163	10.8
Unit 17	26	1.9
Unit 18	245	3.4
Unit 19	179	8.1
Unit 20	337	6.3
Unit 21	52	0.0
Unit 22	**39**	**0.6**

Comment: only patients with complete information and discharged home was used. Antibiotics days were taken from the database as administered at any time during the stay. The leigh of stay was taken from all admissions. Early and late infections were included. One unit did not report any positive blood or spinal cultures.

F. Therapeutic Hypothermia

PRESENTATION 68

Therapeutic Hypothermia all cases

Sarnat staging at the time of admission and needing therapeutic hypothermia*

		Stage 1	Stage 2	Stage 3	Stage 4	Unknown	Total
Hypothermia	Yes	4 9%	24 56%	12 28%	0 0%	3 7%	43 42%
	No						58 57%
	Unknown					1 100%	1 1%
	Total						102

* One patient was 25 days old at admission and was not included; Sarnat stages were not reported in patients who did not receive hypothermia

Units that reported cases with hypothermia therapy

Unidad	Received Hypothermia						
	YES		NO	Unknown		Total	
	n	%	n	n	%	n	%
Unit 12	2	5%	0	0	0%	2	3%
Unit 18	33	77%	6	0	0%	39	64%
Unit 19	7	16%	9	0	0%	16	26%
Unit 22	1	2%	2	1	100%	4	7%
Total	43	100%	17	1	100%	61	100%

Units that did NOT report the use of hypothermia but did report encephalopathy

Unidad	Received Hypothermia		
	Yes	No	
	n	n	%
Unit 1	0	2	5%
Unit 2	0	6	14%
Unit 3	0	3	7%
Unit 5	0	24	57%
Unit 8	0	2	5%
Unit 9	0	1	2%
Unit 13	0	1	2%
Unit 17	0	1	2%
Unit21	0	2	5%
Total	0	42	100%

Reason for not receiving hypothermia*		%
<2K or <35 weeks' gestation	20	34%
Extreme conditions	20	34%
Intracranial trauma	1	2%
Mild encephalopathy	22	38%
Unit Policy	7	12%
Staff Decision	3	5%
Delayed transfer	1	2%
Unknown	5	9%
Total	79	

(*20 cases with more than one reason)

Characteristics			
Method	Selective Head	2	5%
	Whole body cooling	41	95%
Characteristics of neonates who received hypothermia			
Temperatura			
Target temperature	< 33°C	0	0%
	33-34°C	31	72%
	33.5-34.5°C	7	16%
	34-35°C	1	2%
	34.5-35.5°C	4	9%
	Unknown	0	0%
Other Characteristics			
Seizures at onset	4	9%	
Seizures upon completion	4	9%	
Hypotension	14	33%	
Thrombocytopenia	1	2%	
Coagulopathy	4	9%	
Persistent metabolic acidosis	4	9%	
Death	8	19%	
Palliative when leaving	1	2%	

G. CONCLUSIONS

The data and the differences found from our units can be used to establish changes in management that will substantially improve the quality of care of newborns. Additionally, research can be carried out to analyze different risk factors and their outcomes. It can also be used by the community as a form of comparison to establish managements.