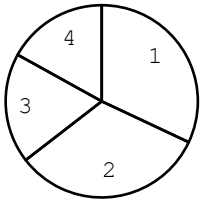
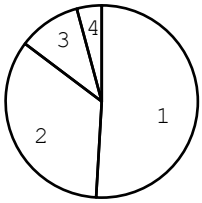
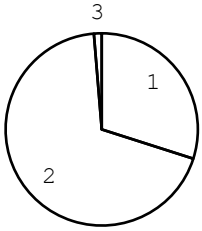
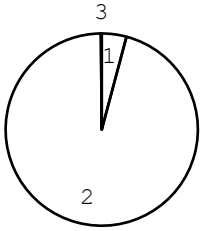
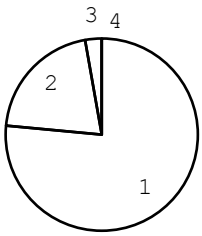
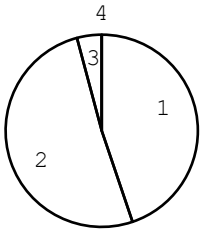
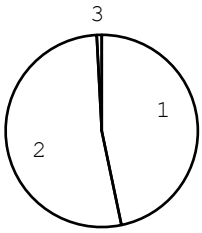
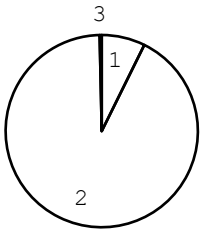
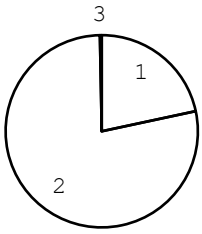
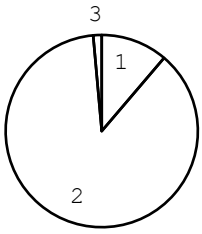
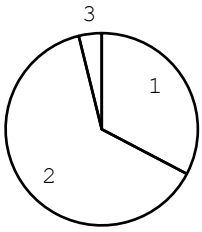
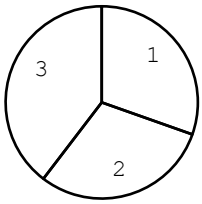
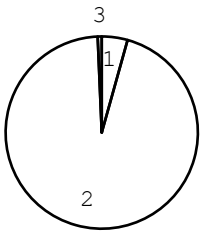
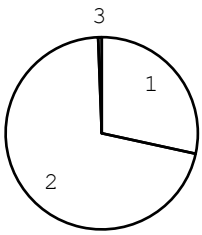
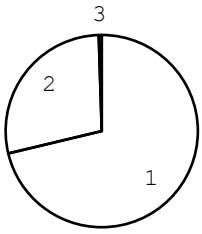
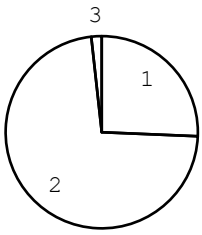
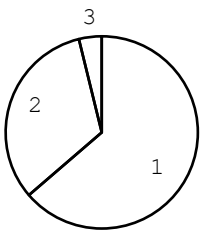
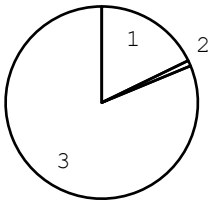
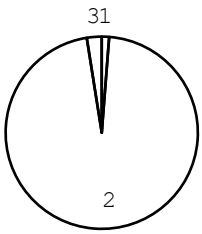
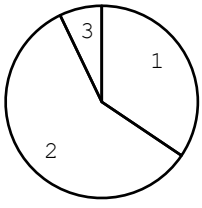
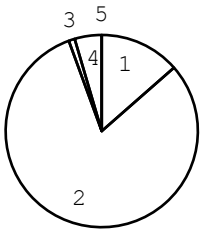
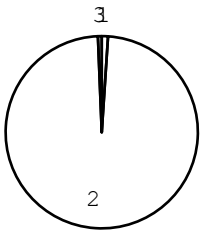
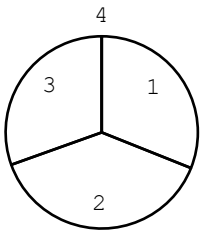
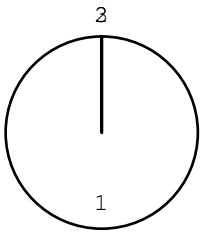
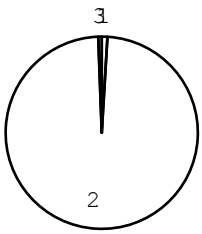
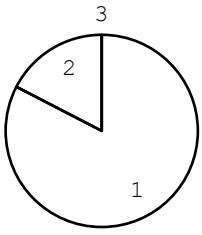
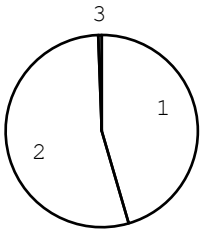
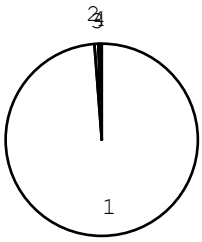
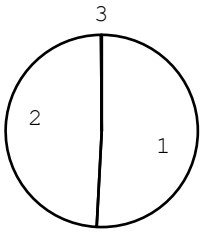
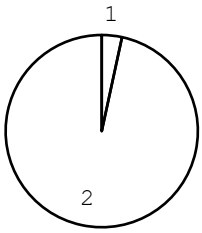
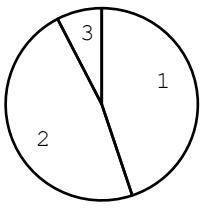
No.	Resources of participating hospitals	All hospitals	n
A	Maternal information		
301	Maternal age (median)	33.0	3145
	lower quartile	29.0	
	upper quartile	37.0	
302	Gravida	 1:0 32% 2:1 33% 3:2 19% 4:3> 17%	3098
303	Parity	 1:0 51% 2:1 34% 3:2 11% 4:3> 4%	3104
304	Maternal Comorbidity	O410 95Number E039 94Number O441 86Number D259 69Number O343 67Number	1001
305	Artificial Reproductive Technology	 1:Yes 30% 2:No 69% 3:not available 1%	2827
306	Foreigner	 1:Yes 4% 2:No 96% 3:not available 0%	2847

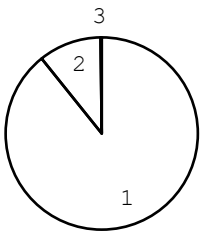
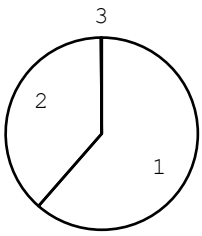
No.	Resources of participating hospitals	All hospitals	n
B	Pregnancy complication		
401	Number of fetus	 1:1 76% 2:2 21% 3:3 3% 4:4> 0%	3275
402	Birth order (among infants with number of fetus 2>)	 1:1 45% 2:2 51% 3:3 4% 4:4> 0%	770
403	Plurality (among infants with number of fetus 2>)	 1:monochorionic 47% 2:multiple chorionic 52% 3:not available 1%	715
404	Diabetes	 1:Yes 7% 2:No 92% 3:not available 0%	2861
405	Pregnancy induced hypertension	 1:Yes 22% 2:No 78% 3:not available 0%	2962

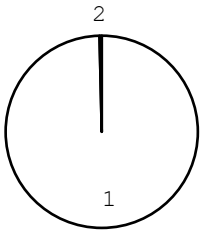
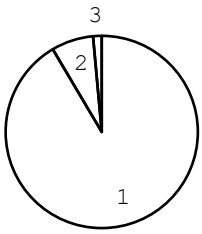
No.	Resources of participating hospitals	All hospitals	n
406	Clinical CAM	 1:Yes 11% 2:No 87% 3:not available 1%	2947
407	Histologic CAM	 1:Yes 33% 2:No 63% 3:not available 4%	2907
408	Grade of histologic CAM (among infants with positive histologic CAM)	 1:I 30% 2:II 30% 3:III 40%	934
415	Chronic hypertension	 1:Yes 4% 2:No 95% 3:not available 1%	2814
C	**Delivery status**		
501	PROM	 1:Yes 28% 2:No 71% 3:not available 1%	2995

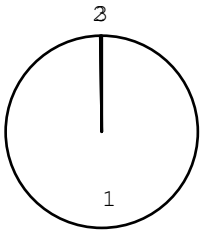
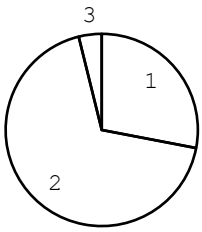
No.	Resources of participating hospitals	All hospitals	n
502	Maternal steroid	 1:Yes 71% 2:No 28% 3:not available 1%	2975
503	NRFS	 1:Yes 26% 2:No 73% 3:not available 2%	2981
504	Presentation	 1:Head 64% 2:other than head 32% 3:not available 4%	2977
505	Mode of delivery	 1:Vaginal 18% 2:Vaginal with manipulation 1% 3:C/S 81%	3027
509	Feto-Maternal transfusion syndrome	 1:Yes 1% 2:No 96% 3:not available 2%	2841
510	Cord blood transfusion	 1:Yes 34% 2:No 58% 3:not available 7%	2905

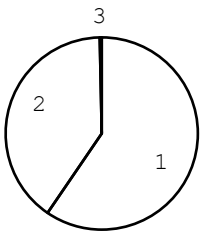
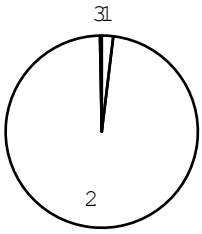
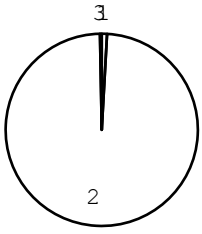
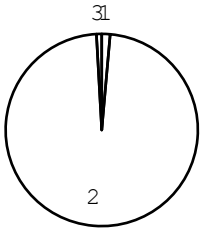
No.	Resources of participating hospitals	All hospitals		n
511	Method of cord blood transfusion (among infants with Live birth, cord blood transfusion)		1:Milking before cord clumping 14% 2:Milking after cord clumping 81% 3:Delayed cord clumping(30～60 sec) 1% 4:Delayed cord clumping(>60sec) 5% 5:not available 0%	879
521	Hydrops		1:Yes 1% 2:No 98% 3:not available 1%	2676
522	Timing of PROM (among infants with PROM)		1:< 24 hrs 31% 2:>= 24 hrs and < 1 week 38% 3:>= 1 week 30% 4:not available 0%	686
523	Placental abruptio		1:Yes 100% 2:No 0% 3:not available 0%	130
524	Umbilical cord prolaspse		1:Yes 1% 2:No 98% 3:not available 1%	2743
531	Maternal steroid doses (among infants with maternal steroid)		1: 1 course completed 83% 2:not completed 17% 3:not available 0%	1804

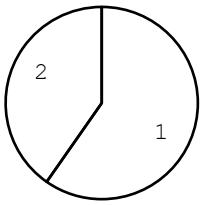
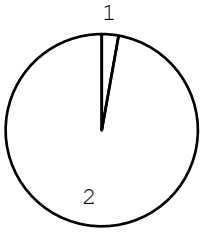
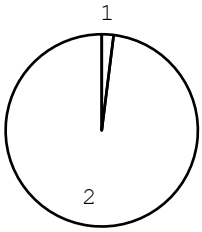
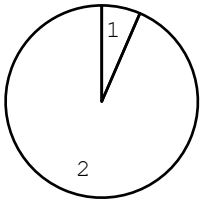
No.	Resources of participating hospitals	All hospitals	n
540	Maternal MgSO4	 1:Yes 45% 2:No 54% 3:not available 1%	2718
D	Neonatal information		
602	Age(day) at admission	 1:0 99% 2:1 1% 3:2 0% 4:>3 0%	3275
603	Gender	 1:Male 51% 2:Female 49% 3:not available 0%	3275
604	Neonatal transport	 1:Yes 3% 2:No 97%	3275
605	Maternal transport (among infants with inborn)	 1:Elective 45% 2:Emergency 48% 3:Booked 8%	2829
606	Gestational age (mean)	29.2	3274
	SD	3.2	
	95% confidence interval	29.1-29.3	

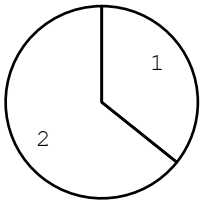
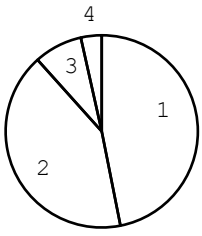
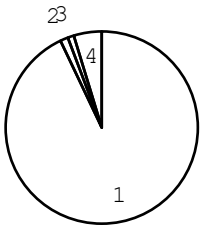
No.	Resources of participating hospitals	All hospitals	n
608	Apgar(1min) (median)	5.0	3221
	lower quartile	3.0	
	upper quartile	7.0	
609	Apgar(5min) (median)	8.0	3222
	lower quartile	6.0	
	upper quartile	9.0	
610	Oxygen use at birth	 1:Yes 89% 2:No 11% 3:not available 0%	2954
611	Intubation at birth	 1:Yes 61% 2:No 38% 3:not available 0%	2950
612	Birht weight (mean)	1096.9	3271
	SD	371.9	
	95% confidence interval	1084.2-1109.7	
613	Body length at birth (mean)	36.0	3104
	SD	4.5	
	95% confidence interval	35.8-36.1	

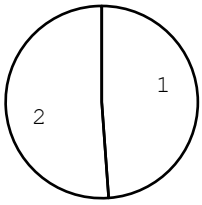
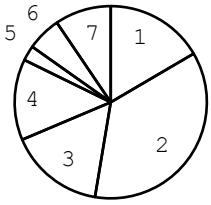
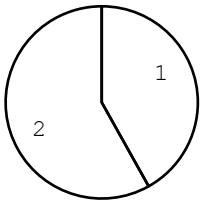
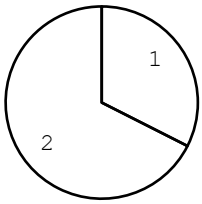
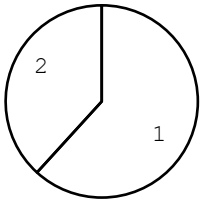
No.	Resources of participating hospitals	All hospitals	n
614	Head circumference at birth (mean)	26.0	3071
	SD	3.1	
	95% confidence interval	25.8-26.1	
615	Live birth	 1:Yes 100% 2:No 0%	3275
620	Cord blood gas analysis	 1:Yes 91% 2:No 7% 3:not available 1%	2974
622	Cord blood pH (mean) (among infants with cord blood analysis)	7.3	2691
	SD	0.1	
	95% confidence interval	7.3-7.3	
624	Cord blood O2 (mean) (among infants with cord blood analysis)	24.6	2278
	SD	19.5	
	95% confidence interval	23.8-25.4	
626	Cord blood CO2 (mean) (among infants with cord blood analysis)	46.8	2349
	SD	12.7	
	95% confidence interval	46.2-47.3	

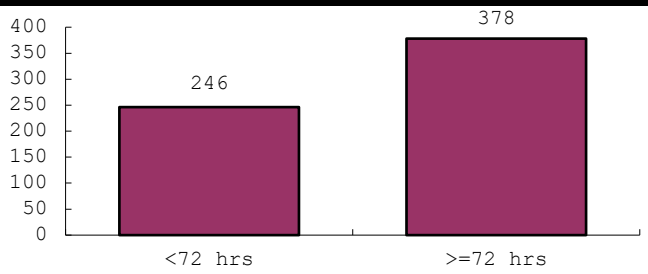
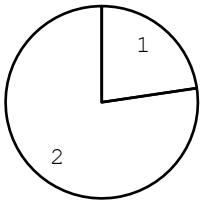
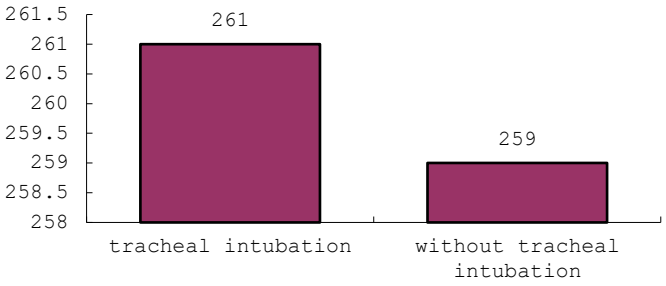
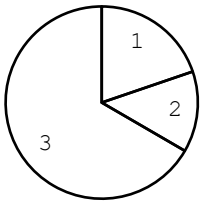
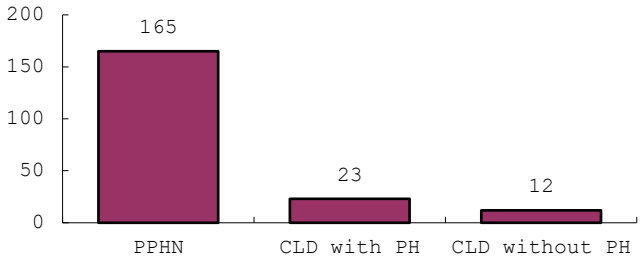
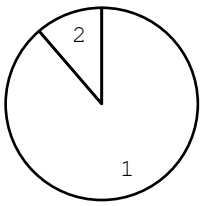
No.	Resources of participating hospitals	All hospitals	n
628	Cord blood base excess (mean) (among infants with cord blood analysis)	-3.0	2721
	SD	4.3	
	95% confidence interval	-3.2--2.9	
630	Neonatal blood gas analysis (among infants with live birth)	 1:Yes 100% 2:No 0% 3:not available 0%	2825
631	Arterial or Venous sample (among infants with neontal blood gas analysis)	 1:arterial blood 28% 2:venous blood 68% 3:not available 4%	2877
632	Neonatal blood pH (mean) (among infants with neontal blood gas analysis)	7.3	2860
	SD	0.1	
	95% confidence interval	7.3-7.3	
634	Neonatal blood O2 (mean) (among infants with neontal blood gas analysis)	61.3	2773
	SD	47.2	
	95% confidence interval	59.5-63.0	
636	Neonatal blood CO2 (mean) (among infants with neontal blood gas analysis)	48.4	2832
	SD	14.8	
	95% confidence interval	47.9-49.0	

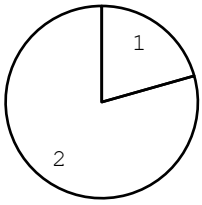
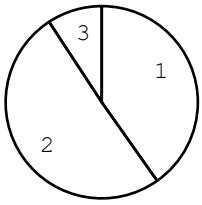
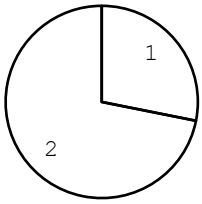
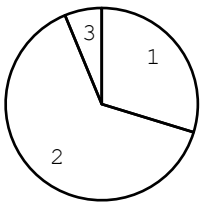
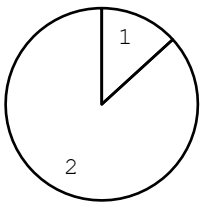
No.	Resources of participating hospitals	All hospitals	n
638	Neonatal blood base excess (mean) (among infants with neontal blood gas analysis)	-3.1	2906
	SD	4.4	
	95% confidence interval	-3.2--2.9	
651	Apgar(10 min) (median)	8.0	1016
	lower quartile	7.0	
	upper quartile	9.0	
652	CPAP use at birth	 1:Yes 60% 2:No 40% 3:not available 0%	2728
653	Chest comprssion at birth	 1:Yes 2% 2:No 98% 3:not available 0%	2708
654	Adrenalin use at birth	 1:Yes 1% 2:No 99% 3:not available 0%	2711
655	Withhold of aggressive resuscitation	 1:Yes 1% 2:No 98% 3:not available 1%	2708

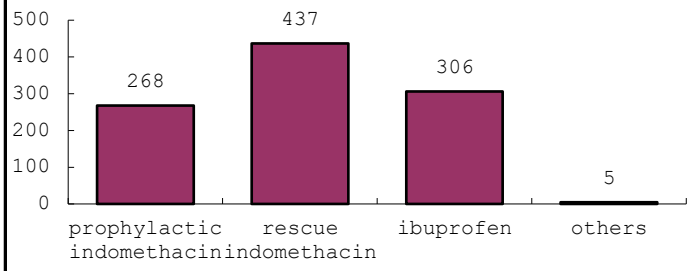
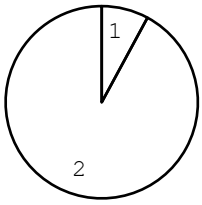
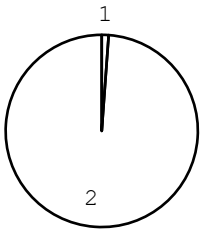
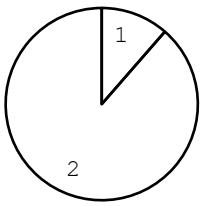
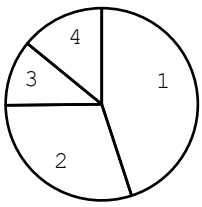
No.	Resources of participating hospitals	All hospitals	n
661	Bodt temperature on admission (mean)	36.8	2485
	SD	0.7	
	95% confidence interval	36.7-36.8	
662	Hb on admission (mean)	16.1	2617
	SD	2.8	
	95% confidence interval	16.0-16.2	
E	**Respiratory disease**		
701	RDS (among infants with live birth and remained)	 1:Yes 60% 2:No 40%	2807
702	Air leak syndrome (among infants with live birth and remained)	 1:Yes 3% 2:No 97%	2773
703	Pulmonary hemorrhage (among infants with live birth and remained)	 1:Yes 2% 2:No 98%	2774
705	PPHN (among infants with live birth and remained)	 1:Yes 6% 2:No 94%	3170

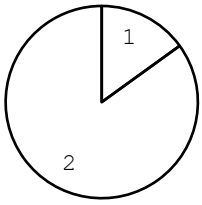
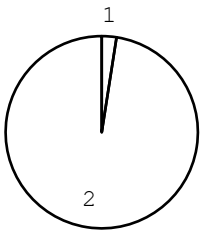
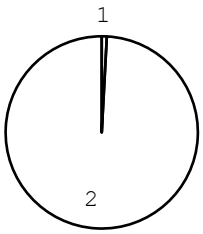
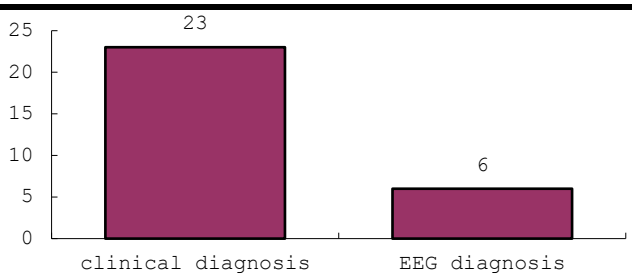
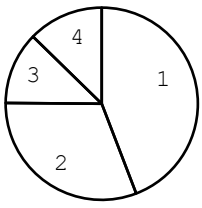
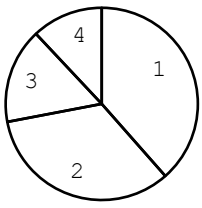
No.	Resources of participating hospitals	All hospitals	n
706	Length of oxygen use (median) (among infants with live birth and remained)	25.0	2701
	lower quartile	2.0	
	upper quartile	66.0	
707	Length of CPAP (median) (among infants with live birth and remained)	13.0	3170
	lower quartile	0.0	
	upper quartile	38.0	
708	Length of mechanical ventilation (median) (among infants with live birth and remained)	3.0	2766
	lower quartile	0.0	
	upper quartile	21.0	
709	Use of HFO (among infants with live birth, remained and mechanical ventilation)	 1:Yes 36% 2:No 64%	1903
710	Dose of surfactant (among infants with live birth and remained)	 1:0 47% 2:1 41% 3:2 8% 4:3> 4%	3170
711	Length of inhaled nitric oxide (among infants with live birth and remained)	 1:0 93% 2:1 1% 3:2 1% 4:3> 5%	3170

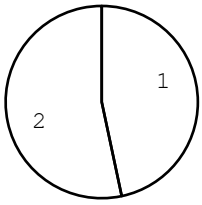
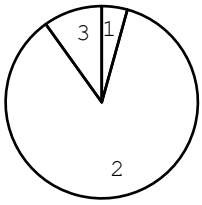
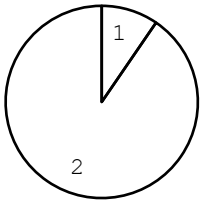
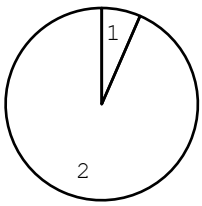
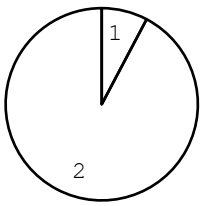
No.	Resources of participating hospitals	All hospitals	n
712	CLD at 28 d (among infants with live birth, remained and alive at 28 days of age)	 1:Yes 49% 2:No 51%	2571
713	Type of CLD (among infants with CLD)	 1:I 17% 2:II 36% 3:III 16% 4:III' 14% 5:IV 3% 6:V 6% 7:VI 9%	1256
714	Glucocorticoid for CLD (among infants with CLD)	 1:Yes 42% 2:No 58%	1189
715	CLD at 36 wk (among infants with live birth, remained, alive at 36 wk(corrected age))	 1:Yes 32% 2:No 68%	2702
716	Oxygen concentration at 36 wk (median) (among infants with CLD at 36 wk)	23.0	933
	lower quartile	21.0	
	upper quartile	25.0	
720	Thoracocentesis (among infants with live birth, remained and pulmonary airleak)	 1:Yes 62% 2:No 38%	68

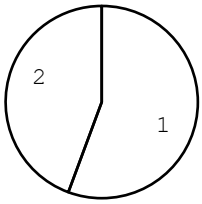
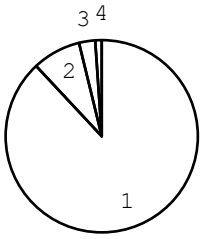
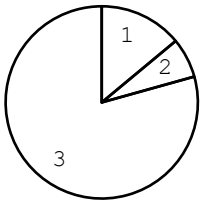
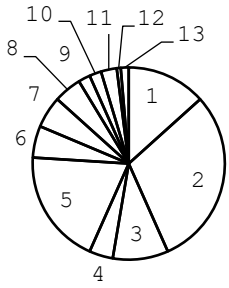
No.	Resources of participating hospitals	All hospitals	n
731	Timing of HFO (among infants with live birth, remained and HFO)		571
732	NAVA use (among infants with live birth, remained and NAVA)	 1:Yes 23% 2:No 77%	1611
733	Method of NAVA (among infants with live birth, remained and NAVA)		320
734	Chest X-ray findings (among infants with live birth, remained and CLD)	 1:diffuse bubbly appearance 20% 2:irregular funicular and emphysematous change 14% 3:diffuse opacity 67%	860
741	Purposes of NO use (among infants with live birth, remained and No use)		186
751	CLD respiratory support at 36 wk (among infants with live birth, remained and CLD 36 wk)	 1:non-invasive supprot 89% 2:mechanical ventilation 11%	858

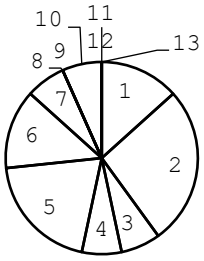
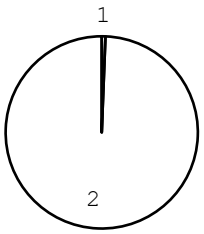
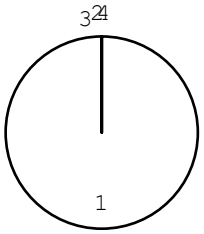
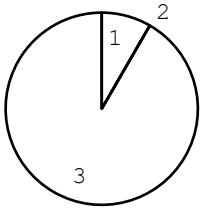
No.	Resources of participating hospitals	All hospitals		n
752	CLD respiratory support at 40 wk (among infants with live birthm, remained and CLD 36 wk)		1:Yes 21% 2:No 79%	2223
753	CLD respiratory support method at 40 wk (among infants with live birth, remained and CLD 40 wk)		1:oxygen 40% 2:non-invasive 51% 3:mechanical ventilation 9%	455
F	**Circulatory problem**			
801	PDA with symptom (among infants with live birth and remained)		1:Yes 28% 2:No 72%	3170
802	Indomethacin for PDA (among infants with live birth and remained)		1:Yes 30% 2:No 64% 3:prophylactic 6%	2627
803	Surgical ligation for PDA (among infants with symptomatic PDA)		1:Yes 13% 2:No 87%	892

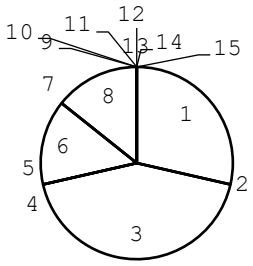
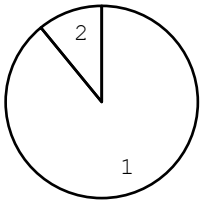
No.	Resources of participating hospitals	All hospitals	n
821	Drugs for PDA (among infants with live birth, remained and PDA)		941
851	Late onset adrenal insufficiency (among infants with live birth, remained and alive at 7 d)	 1:Yes 8% 2:No 92%	2596
G	**Neurological problem**		
901	Seizure (among infants with live birth and remained)	 1:Yes 1% 2:No 99%	2779
902	Intravetricular hemorrhage (among infants with live birth and remained)	 1:Yes 11% 2:No 89%	2770
903	Grade of IVH (among infants with live birth, remained and IVH)	 1:I 45% 2:II 30% 3:III 11% 4:IV 14%	298

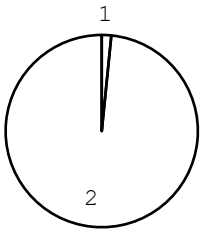
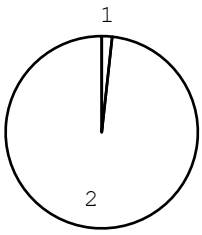
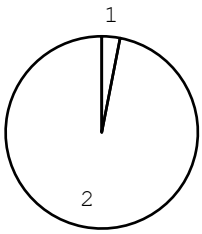
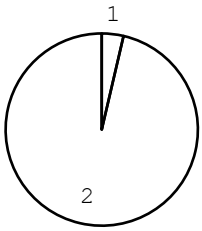
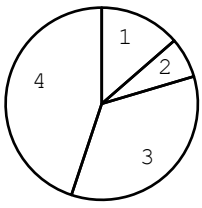
No.	Resources of participating hospitals	All hospitals	n
904	Post IVH hydrocephalus (among infants with live birth, remained and IVH)	 1:Yes 15% 2:No 85%	299
905	PVL (among infants with live birth and remained)	 1:Yes 2% 2:No 98%	2717
906	HIE (among infants with live birth and remained)	 1:Yes 1% 2:No 99%	2728
911	Diagnosis of seivure (among infants with live birth, remained and seizure)		26
921	Grade of IVH right (among infants with live birth, remained and IVH)	 1:I 44% 2:II 31% 3:III 12% 4:IV 13%	197
922	Grade of IVH left (among infants with live birth, remained and IVH)	 1:I 38% 2:II 34% 3:III 16% 4:IV 12%	200

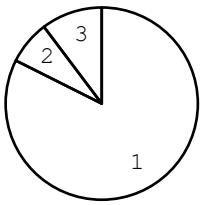
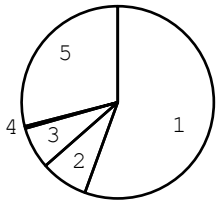
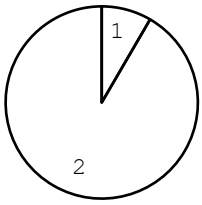
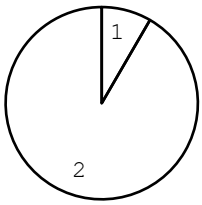
No.	Resources of participating hospitals	All hospitals		n
931	Shunt for post IVH hydrocephalus (among infants with live birth, remained and post IVH hydrocephalus)		1:Yes 47% 2:No 53%	45
941	Whit matter leison (among infants with live birth and remained)		1:Yes 4% 2:No 86% 3:no MRI 10%	2556
H	**Infection**			
1001	Intrauterine infection (among infants with live birth and remained)		1:Yes 10% 2:No 90%	3170
1002	Sepsis (among infants with live birth and remained)		1:Yes 7% 2:No 93%	3170
1004	Early onset sepsis (among infants with live birth, remained and sepsis)		1:Yes 8% 2:No 92%	207

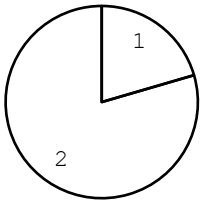
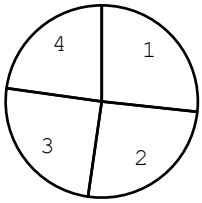
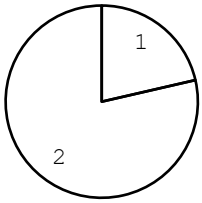
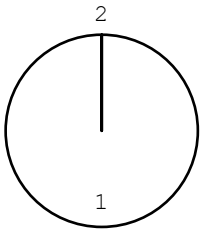
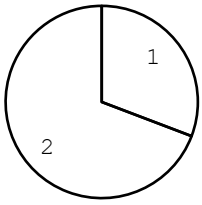
No.	Resources of participating hospitals	All hospitals	n
1010	Use of antibiotics (among infants with live birth and remained)	 1:Yes 56% 2:No 44%	3170
1011	Number of sepsis episodes (among infants with live birth, remained and sepsis)	 1:1 88% 2:2 8% 3:3 3% 4:>=4 1%	184
1012	Onset of 1st episode (among infants with live birth, remained and sepsis)	 1:0～2 days 14% 2:3～6 days 7% 3:>=7 days 79%	179
1013	Pathogen 1st sepsis (among infants with live birth, remained and sepsis)	 1:E.coli 13% 2:CNS (coagulase negative staphylococci) 30% 3:GBS 9% 4:Streptococcus spp (except GBS) 4% 5:MSSA 19% 6:MRSA 5% 7:Klebsiella spp 5% 8:Enterococcus spp 5% 9:Enterobacter spp 2% 10:Pseudomonas Aerigonosa 2% 11:Candida sp. 3% 12:Fungus 1% 13:others 1%	150
1021	Onset of 2nd sepsis (median) (among infants with live birth, remained and 2nd onset sepsis)	48.0	18
	lower quartile	39.3	
	upper quartile	81.5	

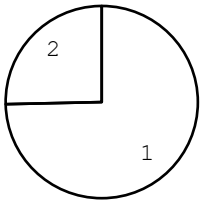
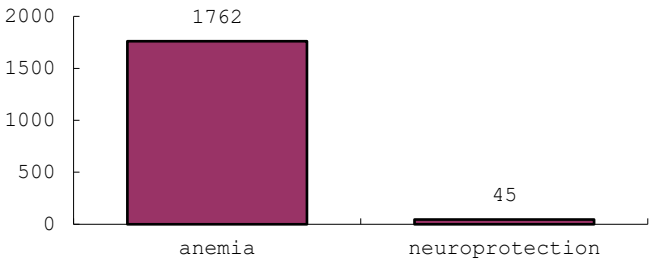
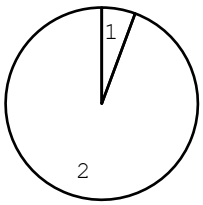
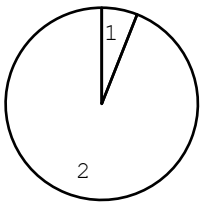
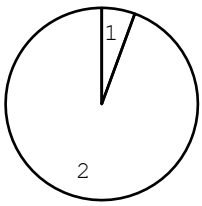
No.	Resources of participating hospitals	All hospitals	n
1022	Pathogen 2nd episode (among infants with live birth, remained and 2nd onset sepsis)	 1:E.coli 13% 2:CNS (coagulase negative staphylococci) 27% 3:GBS 7% 4:Streptococcus spp (except GBS) 7% 5:MSSA 20% 6:MRSA 13% 7:Klebsiella spp 7% 8:Enterococcus spp 0% 9:Enterobacter spp 0% 10:Pseudomonas Aerigonosa 7% 11:Candida sp. 0% 12:Fungus 0% 13:others 0%	15
1031	Meningitis (among infants with live birth and remained)	 1:Yes 1% 2:No 99%	2433
1032	Number of meningitis episodes (among infants with live birth, remained and meningitis)	 1:1 100% 2:2 0% 3:3 0% 4:>=4 0%	12
1033	Onset of 1st meningitis (among infants with live birth, remained and meningitis)	 1:0～2 days 8% 2:3～6 days 0% 3:>=7 days 92%	12

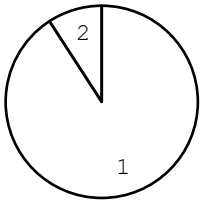
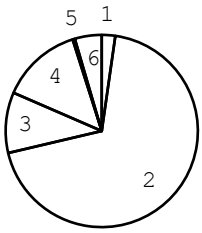
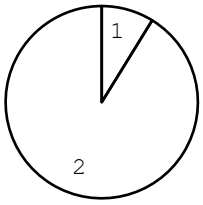
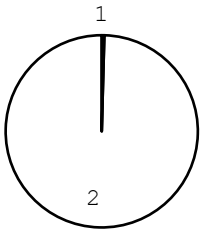
No.	Resources of participating hospitals	All hospitals	n
1034	Pathogne of 1st meningitis (among infants with live birth, remained and meningitis)	 1:E.coli 29% 2:CNS (coagulase negative staphylococci) 0% 3:GBS 43% 4:Streptococcus spp (except GBS) 0% 5:MSSA 0% 6:MRSA 14% 7:Klebsiella spp 0% 8:Enterococcus spp 14% 9:Enterobacter spp 0% 10:Pseudomonas Aerigonosa 0% 11:Candida sp. 0% 12:Fungus 0% 13:others 0% 14:not available 0% 15:CSF not obtained 0%	7
1035	Onset of 2nd meningitis (median) (among infants with live birth, remained and 2nd meningitis)		0
	lower quartile		
	upper quartile		
1036	Pathogen of 2nd meningitis (among infants with live birth, remained and 2n meningitis)	 1:E.coli 0% 2:CNS (coagulase negative staphylococci) 0% 3:GBS 0% 4:Streptococcus spp (except GBS) 0% 5:MSSA 0% 6:MRSA 0% 7:Klebsiella spp 0% 8:Enterococcus spp 0% 9:Enterobacter spp 0% 10:Pseudomonas Aerigonosa 0% 11:Candida sp. 0% 12:Fungus 0% 13:others 0% 14:not available 0% 15:CSF not obtained 0%	0
I	**Gastrointestinal problem**		
1101	Intravenous hyperalimentation (among infants with live birth and remained)	 1:Yes 89% 2:No 11%	2776

No.	Resources of participating hospitals	All hospitals		n
1102	NEC (among infants with live birth and remained)		1:Yes 2% 2:No 98%	2762
1103	Idiopathic intestinal perforation (among infants with live birth and remained)		1:Yes 2% 2:No 98%	2758
1103B	NEC or Idiopathic intestinal perforation (among infants with live birth and remained)		1:Yes 3% 2:No 97%	2774
1104	Meconium related ileus (among infants with live birth and remained)		1:Yes 4% 2:No 96%	2578
1111	Treatment for intestinal perforation (among infants with live birth, remained and NEC, FIP, MRI)		1:dranage only 14% 2:laparotomy 7% 3:laparotomy and ileostomy 35% 4:medical treatment only 45%	147

No.	Resources of participating hospitals	All hospitals	n
J	**Hearing screening**		
1201	Hearing loss screening (among infants with live birth and remained)	 1:Pass 82% 2:Refer 7% 3:not done 10%	2795
K	**Retinopathy of prematurity**		
1301	ROP(worst stage) (among infants with live birth and remained)	 1:<II 56% 2:III(early) 8% 3:III(intermediate) 7% 4:III(late) 0% 5:not done 29%	3170
1302	Treatment for ROP (among infants with live birth and remained)	 1:Yes 8% 2:No 92%	3170
L	**Diagnosis**		
1411	Congenital anomaly	 1:Yes 8% 2:No 92%	3275
1412	Diagnosis of congenital anomaly (among infants with congenital anomaly)	888 62Number 403 27Number 502 27Number 503 17Number	260

No.	Resources of participating hospitals	All hospitals	n
1413	Operation for congenital anomaly (among infants with live birth, remained and congenital anomaly)	 1:Yes 20% 2:No 80%	249
M	**Summary**		
1501	Age at enteral feeding exceed 100ml/kg (median) (among infants with live birth and remained)	10.0	2373
	lower quartile	7.0	
	upper quartile	14.0	
1502	Breast feeding at discharge（%） (among infants with live birth, remained and discharge alive)	 1:100% 27% 2:50～99% 26% 3:1～49% 25% 4:0% 23%	2014
1503	Donor milk use (among infants with live birth and remained)	 1:Yes 21% 2:No 79%	1645
1504	Source of donor milk (among infants with live birth, remained and donor milk use)	 1:milk bank100% 2:in-hospital 0%	342
1511	Blood transfusion (among infants with live birth and remained)	 1:Yes 31% 2:No 69%	2752

No.	Resources of participating hospitals	All hospitals	n
1512	Erythropoietin (among infants with live birth and remained)	 1:Yes 75% 2:No 25%	2722
1513	Purposes of erythropoietin use (among infants with live birth, remained and erythropoietin)		1765
N	**Condition at discharge**		
1601	Age at discharge (mean) (among infants with live birth and remained)	88.1	2943
	SD	53.2	
	95% confidence interval	86.2-90.0	
1602A	Dead at discharge (among infants with live birth and remained)	 1:Yes 6% 2:No 94%	3170
1602B	Dead at discharge (among infants with live birth)	 1:Yes 6% 2:No 94%	3182
1603	Autopsy (among infants with live birth, remained and dead at discharge)	 1:Yes 6% 2:No 94%	179

No.	Resources of participating hospitals	All hospitals	n
1604	Cause of death (among infants with live birth, remained and dead at discharge)	100 22Number 900 10Number 310 9Number 400 9Number	125
1605	Discharge home (among infants with live birth, remained and alive at discharge)	 1:Yes 91% 2:No 9%	2991
1606	Disposition (among infants with live birth, remained, alive at discharge, and transferred)	 1:Delivered hospital 2% 2:Other NICU 69% 3:Pediatric ward 10% 4:Other hospital 14% 5:Facility for disabled children 0% 6:Orphanage 5%	265
1607	HOT (among infants with live birth, remained and alive at discharge)	 1:Yes 9% 2:No 91%	2991
1608	Tracheostomy (among infants with live birth and alive at discharge)	 1:Yes 0% 2:No 100%	2991
1609	Body weight at discharge (mean) (among infants with alive at discharge)	2799.6	2891
	SD	769.3	
	95% confidence interval	2771.6-2827.7	

No.	Resources of participating hospitals	All hospitals	n
1610	Body length at discharge (mean) (among infants with alive at discharge)	46.4	2855
	SD	4.7	
	95% confidence interval	46.3-46.6	
1611	Head circumference at discharge (mean) (among infants with alive at discharge)	34.0	2854
	SD	2.9	
	95% confidence interval	33.9-34.1	