

Appendix 2

Overlapping borders: limit of viability and late terminations of pregnancy – a retrospective multicentre observational study

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Category	Reason for termination of pregnancy	Gender	Gestational age		Birthweight (g)	Multiples	SB / LB
			Weeks	Days			
Cystic fibrosis	Cystic fibrosis	F	22	3	430	No	SB
Cystic fibrosis	Cystic fibrosis	F	24	6	620	No	SB
Cystic fibrosis	Cystic fibrosis	F	27	6	1010	No	SB
CHD	Critical aortic stenosis with dilated cardiomyopathy	M	22	0	530	No	SB
CHD	Incomplete atrioventricular canal with large inlet ventricular septum defect, small left ventricular outflow tract	F	22	2	450	No	LB
CHD	Complex congenital heart disease	M	22	2	450	No	SB
CHD	Hypoplastic left heart syndrome	M	22	2	490	No	LB
CHD	Hypoplastic left heart syndrome	F	22	3	410	No	SB
CHD	Congenital heart disease, unspecified	F	22	3	470	No	SB
CHD	Hypoplastic left heart syndrome	F	22	3	500	No	SB
CHD	Heterotaxy with left atrial isomerism	F	22	5	480	No	LB
CHD	Congenital heart disease with hypoplastic right ventricle	M	22	6	810	No	LB
CHD	Hypoplastic left heart syndrome	M	23	0	580	No	SB
CHD	Pulmonary atresia, ventricular septum defect, overriding aorta	F	23	4	640	No	LB
CHD	Hypoplastic left heart syndrome	M	23	4	650	No	SB
CHD	Double inlet left ventricle with right anterior small ejection chamber and right anterior small aorta, large right posterior pulmonary artery	F	23	6	600	No	SB
CHD	Hypoplastic left heart syndrome	M	24	0	560	No	LB
CHD	Congenital heart disease, unspecified	F	24	0	660	No	SB

CHD	Congenital heart disease, unspecified	M	24	0	665	No	LB
CHD	Hypoplastic left heart syndrome	M	24	1	675	No	LB
CHD	Congenital heart disease, unspecified	F	24	6	750	No	SB
CHD	Tricuspid atresia, pulmonary stenosis, severely hypoplastic right ventricle	M	25	0	760	No	LB
CHD	Ebstein anomaly with hypoplastic left-sided cardiac structures	F	25	3	780	No	LB
CHD	Partial trisomy 17q, partial monosomy 12p, hypoplastic aortic arch	M	25	4	730	No	SB
CHD	Large ventricular septum defect with hypoplastic aorta	M	26	0	880	No	SB
CHD	Transposition of the great arteries, severe IUGR	F	27	6	505	No	SB
Chromosomal anomaly	Trisomy 21	F	22	0	380	Yes	SB
Chromosomal anomaly	Trisomy 21	F	22	0	430	No	SB
Chromosomal anomaly	Trisomy 21	F	22	1	170	Yes	SB
Chromosomal anomaly	Triploidy	F	22	1	220	No	SB
Chromosomal anomaly	Tetrasomy 18p	M	22	1	530	Yes	SB
Chromosomal anomaly	Trisomy 18	F	22	2	370	No	SB
Chromosomal anomaly	Trisomy 18	F	22	2	410	No	SB
Chromosomal anomaly	Triploidy	F	22	3	200	No	LB
Chromosomal anomaly	Wolf-Hirschhorn syndrome (partial monosomy 4p)	M	22	3	385	No	SB
Chromosomal anomaly	Noonan syndrome	M	22	3	530	No	LB
Chromosomal anomaly	Trisomy 21	M	22	4	538	No	SB
Chromosomal anomaly	Trisomy 21	M	22	6	540	No	SB
Chromosomal anomaly	Trisomy 13	F	23	0	665	No	SB
Chromosomal anomaly	Trisomy 21, hydrops fetalis	F	23	1	111	No	SB
Chromosomal anomaly	Microdeletion 1p36.3	M	23	3	270	No	SB
Chromosomal anomaly	Trisomy 21, AV canal	M	23	5	540	No	SB
Chromosomal anomaly	Trisomy 21	M	23	5	635	No	LB
Chromosomal anomaly	Trisomy 21	F	24	0	700	No	LB
Chromosomal anomaly	Triploidy 69, XXY	M	24	1	340	No	LB
Chromosomal anomaly	Trisomy 21, ventriculomegaly	M	24	2	730	No	LB

Chromosomal anomaly	Triploidy 69, XXX	F	24	5	378	No	SB
Chromosomal anomaly	Trisomy 18	M	25	4	520	No	SB
Chromosomal anomaly	Trisomy 18	F	25	4	700	No	SB
Chromosomal anomaly	46, XX de novo interstitial deletion	F	25	4	780	No	SB
Chromosomal anomaly	Trisomy 22	M	25	5	650	No	SB
Chromosomal anomaly	Turner syndrome	F	26	1	670	No	SB
Chromosomal anomaly	Trisomy 18 (VSD, IUGR, clubfeet)	M	27	2	710	No	SB
Chromosomal anomaly	Trisomy 9	F	27	2	730	No	SB
CNS malformation	Severe CNS malformation	F	22	1	470	No	SB
CNS malformation	Anencephaly	F	22	3	350	No	SB
CNS malformation	Hydrocephalus, suspected disorder of migration and gyration	M	22	3	410	No	LB
CNS malformation	Myelomeningocele	M	22	3	450	No	LB
CNS malformation	Occipital encephalocele, disrupted lamination of neocortex, small cerebellum	F	22	3	470	No	LB
CNS malformation	Hydrocephalus	M	22	3	490	No	SB
CNS malformation	Dandy-Walker malformation	M	22	3	520	No	SB
CNS malformation	Occipital encephalocele with microcephaly	F	22	4	240	No	SB
CNS malformation	Myelomeningocele with Arnold-Chiari malformation	F	22	4	395	No	LB
CNS malformation	Cerebellar hypoplasia, microcephaly	F	22	6	380	No	SB
CNS malformation	Massive hydrocephalus	F	22	6	555	No	SB
CNS malformation	Hydrocephalus secondary to suspected aqueductal stenosis	F	23	0	490	No	SB
CNS malformation	CNS malformation, unspecified	M	23	0	570	No	SB
CNS malformation	Cervical encephalocele	F	23	0	620	No	LB
CNS malformation	Hydrocephalus, cerebellar hypoplasia	F	23	1	450	No	LB
CNS malformation	Bilateral ventriculomegaly, partial agenesis of corpus callosum, bilateral haemorrhages	F	23	1	450	No	LB
CNS malformation	Myelomeningocele with Arnold-Chiari II malformation	F	23	1	565	No	LB
CNS malformation	Myelomeningocele L4-S1 with complex spine anomalies	M	23	1	580	No	LB
CNS malformation	Massive ventricular dilatation	F	23	1	650	No	SB
CNS malformation	Suspected Joubert-Syndrom, bilateral polycystic kidneys with oligo/anhydramnion	M	23	1	660	No	SB
CNS malformation	Myelomeningocele with Arnold-Chiari malformation	M	23	2	505	No	SB
CNS malformation	Hydrocephalus	M	23	2	555	No	LB
CNS malformation	Post haemorrhagic hydrocephalus	F	23	3	480	No	LB

CNS malformation	Myelomeningocele, mild ventricular dilatation	M	23	3	520	No	LB
CNS malformation	Dandy-Walker malformation	F	23	3	585	No	SB
CNS malformation	Lumbosacral Myelomeningocele with Arnold Chiari II malformation	M	23	3	645	No	LB
CNS malformation	Myelomeningocele with Arnold Chiari II malformation	M	23	3	660	No	SB
CNS malformation	CNS malformation	M	23	4	460	No	SB
CNS malformation	CNS malformation, unspecified	F	23	4	470	No	SB
CNS malformation	Sacral Myelomeningocele with hydrocephalus	F	23	4	510	No	LB
CNS malformation	Agenesis of corpus callosum with hydrocephalus	F	23	5	610	No	SB
CNS malformation	Aqueductal stenosis, hydrocephalus, dysplastic tectum, aplasia septum pellucidum	M	23	5	670	No	SB
CNS malformation	Suspected ischemic insult with progressive hydrocephalus, severe placental insufficiency	M	23	6	290	No	SB
CNS malformation	Hydrocephalus secondary to aqueductal stenosis, cerebellar hypoplasia (not confirmed at autopsy); in addition oesophageal atresia type C	F	23	6	590	No	LB
CNS malformation	Agenesis of corpus callosum, ventriculomegaly, suspected bilateral polycystic kidneys	M	23	6	670	No	LB
CNS malformation	Agenesis of corpus callosum, microcephaly	M	23	6	680	No	LB
CNS malformation	Myelomeningocele	F	23	6	710	No	LB
CNS malformation	Dandy-Walker malformation	F	24	0	610	No	LB
CNS malformation	CNS malformation, unspecified	F	24	0	620	No	SB
CNS malformation	Agenesis of corpus callosum	F	24	0	640	No	SB
CNS malformation	Microcephaly, semilobar holoprosencephaly	F	25	1	670	No	LB
CNS malformation	Myelomeningocele with hydrocephalus	F	25	4	815	No	SB
CNS malformation	Agenesis of corpus callosum with hydrocephalus	F	26	2	1020	No	LB
CNS malformation	Complex CNS malformation	M	27	0	1250	No	SB
CNS malformation	Myelomeningocele with microcephaly	M	27	5	734	No	SB
CNS malformation	CNS arteriovenous malformation with haemorrhage	F	27	6	1300	No	LB
Genetic disorder	Peutz-Jeghers syndrome	M	24	2	660	No	SB
Hydrops	Non-immune hydrops, preeclampsia (mirror syndrome)	M	22	2	680	No	SB
Hydrops	Severe non-immune hydrops with skin oedema, ascites and pleural effusions	F	26	3	1160	No	SB
Intrauterine infection	Cytomegalovirus seroconversion	F	22	0	390	No	SB
Intrauterine infection	IUGR, anhydramnion (autopsy: generalised CMV infection)	M	22	2	370	No	SB
Intrauterine infection	Cytomegalovirus infection	M	22	3	450	No	SB

Intrauterine infection	Congenital cytomegalovirus infection with severe brain injury	M	23	0	470	No	LB
Intrauterine infection	Cytomegalovirus infection	F	23	2	635	No	SB
Intrauterine infection	Severe fetal toxoplasmosis	F	24	5	540	No	LB
Maternal indication	HELLP syndrome	M	22	1	335	Yes	SB
Maternal indication	HELLP syndrome	M	22	1	355	Yes	SB
Maternal indication	Chorioamnionitis after PROM	F	22	1	505	No	SB
Maternal indication	Chorioamnionitis	M	22	3	450	Yes	LB
Maternal indication	Chorioamnionitis	M	22	3	460	Yes	LB
Maternal indication	Chorioamnionitis	F	22	3	470	Yes	LB
Maternal indication	Psychiatric indication: pregnancy after rape	M	22	4	660	No	SB
Maternal indication	Psychiatric disorder	F	22	5	1	No	SB
Maternal indication	Chorioamnionitis	F	22	6	480	No	SB
Maternal indication	Placental abruption, maternal haemorrhagic shock	M	22	6	595	No	LB
Maternal indication	HELLP syndrome	M	23	0	435	No	LB
Maternal indication	Mother with tuberous sclerosis, psychosocial burden (pregnancy only detected at 20 weeks)	F	23	2	520	No	LB
Maternal indication	Chorioamnionitis	M	23	3	490	Yes	LB
Maternal indication	Chorioamnionitis	M	23	3	530	Yes	LB
Maternal indication	HELLP syndrome	M	23	4	330	No	LB
Maternal indication	HELLP syndrome	M	23	4	380	No	LB
Maternal indication	Psychosocial stress	F	23	5	575	No	SB
Maternal indication	Eclampsia	F	24	0	490	No	LB
Maternal indication	Chorioamnionitis	F	25	6	790	No	LB
Maternal indication	HELLP syndrome	M	26	2	660	No	SB
Maternal indication	Preeclampsia	M	27	2	490	No	LB
Multiple malformation	Apert syndrome	F	22	3	570	No	SB
Multiple malformation	Complex CHD, CNS malformation	M	23	6	530	No	SB
Multiple malformations	Arthrogryposis multiplex congenital and gastroschisis	F	22	6	460	No	SB
Multiple malformations	Craniofacial malformation	M	23	0	450	No	SB
Multiple malformations	Sacral teratoma, CHD, cystic lesion posterior cranial fossa	M	23	1	760	No	SB
Multiple malformations	Multiple malformations	F	23	2	370	No	LB
Multiple malformations	Cleft lip, malformed nose, dilated lateral ventricles	M	23	2	650	No	LB
Multiple malformations	Syndromal disease, unspecified	F	23	3	410	No	SB
Multiple malformations	Prune-Belly syndrome	M	23	3	505	No	SB
Multiple malformations	Multiple malformations, unspecified	M	23	4	590	No	SB
Multiple malformations	Multiple malformations, unspecified	M	23	6	395	No	SB
Multiple malformations	Multiple malformations, unspecified	M	24	4	685	No	SB

Multiple malformations	Multiple malformations (IUGR, fetal akinesia, club feet and hands, bilateral ventricular dilatation), suspected trisomy 18	F	24	5	390	No	LB
Multiple malformations	Cystic hygroma, structural renal anomalies, ventriculomegaly	M	25	1	970	No	LB
Multiple malformations	Complex CHD, pulmonary hypoplasia, anomalies of fingers and face, additional autopsy findings: anal atresia, Meckel's diverticulum, right-sided hexadactyly, cleft palate, micropenis	M	26	0	780	No	SB
Multiple malformations	Pena-Shokeir syndrome	F	26	3	1005	No	LB
Multiple malformations	Hydrocephalus, hyperechogenic bowel, short femur	M	26	6	880	No	SB
Not classifiable	Not specified	F	27	0	730	No	SB
Oligo-/ Anhydramnion	PPROM, anhydramnion and cord prolapse	M	22	1	400	No	SB
Oligo-/ Anhydramnion	Oligo/anhydramnion sequence with lung hypoplasia	M	22	1	550	No	LB
Oligo-/ Anhydramnion	PPROM, anhydramnion	M	22	2	540	No	LB
Oligo-/ Anhydramnion	PROM with persisting anhydramnion	M	22	5	490	No	SB
Oligo-/ Anhydramnion	Oligohydramnion, retroplacental hematoma	M	23	0	470	No	SB
Oligo-/ Anhydramnion	PPROM, anhydramnion and cord prolapse	M	23	0	510	No	LB
Oligo-/ Anhydramnion	Anhydramnion following PPROM	F	23	1	710	No	LB
Oligo-/ Anhydramnion	Anhydramnion	M	23	3	480	No	SB
Oligo-/ Anhydramnion	Anhydramnion	F	24	0	575	No	SB
Oligo-/ Anhydramnion	PROM with persisting anhydramnion	F	24	0	705	No	SB
Oligo-/ Anhydramnion	Anhydramnion with lung hypoplasia, omphalocele	M	24	5	670	Yes	LB
Respiratory system	Congenital high airway obstruction syndrome with hydrops	M	22	1	800	No	SB
Respiratory system	Congenital chylothorax with hydrops	F	23	0	990	No	SB
Respiratory system	Congenital Pulmonary Airway Malformation (CPAM)	M	23	2	610	No	LB
Respiratory system	Congenital diaphragmatic hernia, hypoplastic left heart syndrome	M	24	1	600	No	SB
Respiratory system	Severe congenital diaphragmatic hernia	F	25	0	680	No	SB
Severe IUGR	PPROM (17th week of pregnancy)	F	22	3	500	No	SB
Severe IUGR	Severe IUGR, suspected ventricular septum defect	M	23	2	220	No	LB
Severe IUGR	Massive IUGR	M	24	1	330	No	LB

Severe IUGR	IUGR, midfacial hypoplasia, hypospadias (at autopsy)	M	24	3	350	No	SB
Severe IUGR	Severe IUGR	F	24	4	302	No	SB
Severe IUGR	severe IUGR	M	24	6	305	No	LB
Severe IUGR	Massive IUGR	M	27	0	400	No	SB
Skeletal dysplasia	Skeletal dysplasia (differential diagnosis osteogenesis imperfecta)	F	22	3	440	No	SB
Skeletal dysplasia	Osteogenesis imperfecta	F	22	6	480	No	SB
Skeletal dysplasia	Cervicothoracic costo-vertebral dysostosis	F	23	2	500	No	SB
Skeletal dysplasia	Malformed extremities	F	23	3	550	No	LB
Skeletal dysplasia	Skeletal dysplasia, autopsy: thanatophoric dysplasia type 1 without detection of the classical mutation FGFR3	M	23	5	570	No	SB
Skeletal dysplasia	Suspected osteogenesis imperfecta	M	23	6	560	No	LB
Skeletal dysplasia	Osteogenesis imperfecta	M	24	2	630	No	SB
Skeletal dysplasia	Campomelic dysplasia, maternal HELLP syndrome	F	24	2	640	No	LB
Skeletal dysplasia	Osteogenesis imperfecta type 2	F	24	3	530	No	LB
Skeletal dysplasia	Thanatophoric dysplasia type 1 with the classical mutation FGFR3	M	24	6	955	No	SB
Skeletal dysplasia	Foetal akinesia sequence (differential diagnosis congenital arthrogryposis)	M	26	5	1005	No	LB
Teratoma	Sacral teratoma	M	24	3	820	No	LB
TTTS	Spontaneous intrauterine fetal death: twin A now, twin B 4 weeks ago	M	24	2	140	Yes	SB
TTTS	Spontaneous intrauterine fetal death: twin A now, twin B 4 weeks ago	M	24	2	490	Yes	SB
TTTS	PPROM, vaginal bleeding following laser therapy of TTTS	F	24	5	410	Yes	LB
TTTS	PPROM, vaginal bleeding following laser therapy of TTTS	F	24	5	640	Yes	LB
Urogenital system	Bilateral renal agenesis	M	22	3	610	No	SB
Urogenital system	Megavesica, oligohydramnion	M	23	0	740	No	SB
Urogenital system	Renal agenesis with anhydramnion	M	23	2	370	No	SB
Urogenital system	Potter sequence with right-sided renal agenesis	F	23	5	385	No	SB
Urogenital system	Bilateral renal agenesis	M	23	5	620	No	SB
Urogenital system	Bilateral multicystic dysplastic kidneys	M	24	0	510	No	SB
Urogenital system	Bilateral multicystic dysplastic kidneys with anhydramnion	M	25	2	1060	No	LB
Urogenital system	Bilateral renal agenesis	M	25	4	710	No	SB

CHD = congenital heart disease; CNS = central nervous system; HELLP = haemolysis, elevated liver enzymes, low platelet count; IUGR = intrauterine growth restriction; LB: live birth; (P)PROM = (preterm) premature rupture of membranes; SB = stillbirth; TTTS = twin-twin transfusion syndrome