

V17.2 Special Report: Existing vs. Revised ICD-10 CM Specifications for Unexpected Newborn Complications (NQF # 716 - Unexpected Complications in Term Newborns)

INTRODUCTION

The National Quality Forum (<http://www.qualityforum.org>) endorsed Measure 0716: Unexpected Complications in Term Newborns in January, 2011 with an endorsement renewal in October, 2016.

The measure is a hospital level outcome measure that reflects the percent of infants (inborns only) with Unexpected Newborn Complications (UNC) among term newborns with no (known) preexisting conditions. The overall UNC is further divided into infants with moderate or severe complications according to the algorithm developed by the measure steward, California Maternal Quality Care Collaborative (www.CMQCC.org).

NPIC has reported on UNC rates for member and contract hospitals since shortly after the measure was approved by the NQF and has used the measure where perinatal quality metrics were of interest to project managers/researchers. We have found the measure to be a widely accepted method for tracking newborn complications in the lowest risk newborn population. Since complications can occur in the best of circumstances, this measure provides a way for hospitals to systematically quantify the shortfall for their perinatal team and when coupled with comparative rates across peer subgroups, a way to determine outlier status and opportunities for quality improvement initiatives.

PROPOSED REVISIONS

The proposed revisions suggested by CMQCC leadership reflected in this V17.2 Special Report are detailed in Appendix A and displayed in the following table and graph. One of the biggest changes affecting the UNC rate is the number of cases remaining in the denominator following the removal of “excluded” cases. A large number of cases with benign congenital anomalies are no longer being excluded, so for most hospitals we observed an increase in the UNC Final Denominator: “Inborns in the measure population without preexisting complications”.

Table 1: Existing vs. Revised ICD-10 CM Specifications for UNC displays data for the period 7/1/2016-6/30/2017 for your hospital compared to your peer subgroup and the NPIC Data Base. Each column shows the existing rate of UNC compared to the new “revised” rate using the proposed algorithm. Existing and revised rates are shown for the total UNC rate as well as the rates subdivided into moderate and severe categories and neonatal complication subcategories. The variance between the existing and revised rates is also displayed.

Graph 1: Displays your hospital’s data from Table 1, showing the overall rate of the existing vs. revised UNC rates along with proportion of moderate to severe cases within each category across your subgroup of peer hospitals. The graph illustrates the magnitude of the change between the existing and revised version of the algorithm as well as the degree of change within the moderate and severe categories.

Questions and comments regarding this report can be directed to mervices@npic.org.

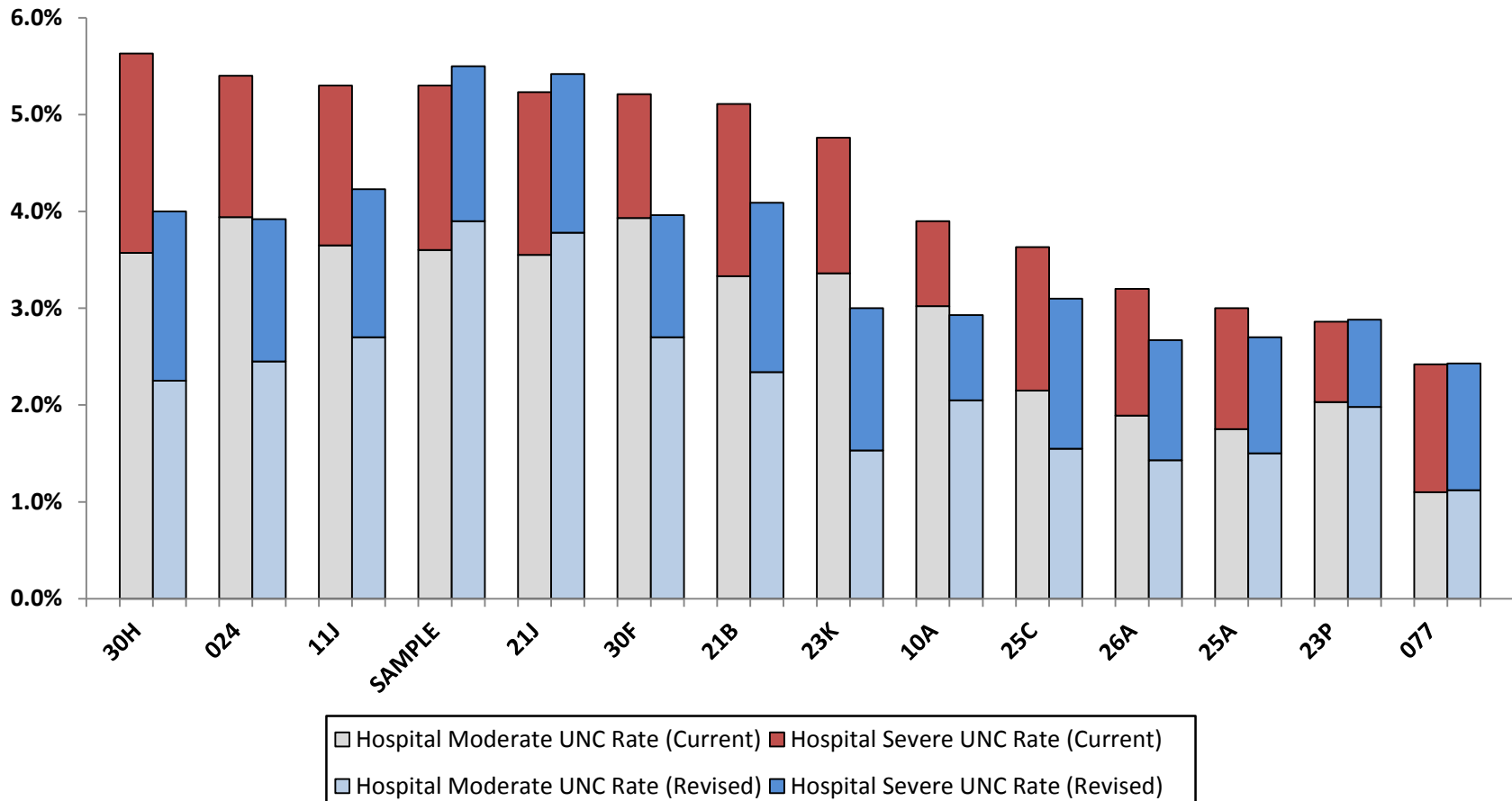
**V17.2 Special Report: Existing vs. Revised ICD-10 CM Specifications
for Unexpected Newborn Complications (UNC)
(NQF #716 - “Unexpected Complications in Term Newborns”)**

	Hospital SAMPLE			Subgroup Averages			Database Averages				
	Existing	Revised	Variance	Existing	Revised	Variance	Existing	Revised	Variance		
A. Inborns											
Total Inborns	2,705	2,705	--	4,237	4,237	--	3,590	3,590	--		
UNC Final Denominator: Inborns in measure population without preexisting complications ¹	1,879	1,983	5.5%	2,850	3,234	13.5%	2,573	2,836	10.2%		
B. Unexpected Newborn Complication Rates											
	#	%	#	%							
Total UNC Rate:	99	5.3%	109	5.5%	4.4%	4.3%	3.5%	-18.5%	3.9%	3.2%	-19.8%
Inborns with severe or moderate complications											
Severe UNC Rate: Inborns with severe complications	31	1.7%	32	1.6%	-2.4%	1.4%	1.4%	-2.1%	1.4%	1.4%	-0.7%
Moderate UNC Rate: Inborns with moderate complications	68	3.6%	77	3.9%	7.2%	2.9%	2.1%	-26.5%	2.6%	1.8%	-30.6%
C. Neonatal Complication Sub-Categories ²											
	#	%	#	%							
Respiratory	58	58.6%	67	61.5%	4.9%	58.5%	54.5%	-6.7%	58.4%	56.0%	-4.1%
Severe	11	11.1%	11	10.1%	-9.2%	10.2%	11.8%	16.2%	7.9%	9.9%	24.9%
Infection	11	11.1%	12	11.0%	-0.9%	12.7%	15.5%	21.6%	13.9%	17.6%	26.8%
Severe	10	10.1%	11	10.1%	-0.1%	11.0%	12.7%	15.5%	9.9%	12.1%	22.1%
Transfer to Higher Level of Care (Severe only)	0	0.0%	0	0.0%	--	0.8%	0.9%	7.3%	2.0%	3.3%	66.5%
Neurologic/Birth Injury	9	9.1%	6	5.5%	-39.5%	18.6%	17.3%	-7.4%	19.8%	15.4%	-22.3%
Severe	6	6.1%	6	5.5%	-9.2%	10.2%	12.7%	25.2%	9.9%	12.1%	22.1%
Shock/Resuscitation (Severe only)	4	4.0%	4	3.7%	-9.2%	0.8%	0.9%	7.3%	1.0%	1.1%	11.0%
Long Length of Stay without clear diagnosis (Moderate only)	17	17.2%	20	18.4%	6.9%	8.5%	10.9%	28.7%	5.0%	5.5%	11.0%

¹ Includes singletons; birthweight ≥ 2500 grams; gestational age ≥ 37 weeks. Excludes fetal malformations; maternal/fetal complications; exposure to maternal drug use.

² Does not include neonatal deaths.

**Graph 1: Existing vs. Revised ICD-10 CM Specifications
Unexpected Newborn Complication Rates
Subgroup AR - Academic Regional**



Appendix A: Summary of CMQCC PROPOSED Changes to Unexpected Newborn Complications (Unexpected Complications in Term Newborns) Specifications* (July 2017)

ICD 10 Changes

- 1) Add these two diagnosis codes to Group 3C: Severe Shock and Resuscitation (Diagnosis Codes)
 - I46.9** Cardiac arrest, cause unspecified
 - P29.0** Neonatal cardiac failure

- 2) Add this diagnosis code to Group 4D: Moderate Birth Trauma with LOS
 - P15.4** Birth injury to face

- 3) Move these two diagnosis codes from Group 3F: Severe Neurological Complications (Diagnosis Codes) to Group 3C: Severe Shock and Resuscitation (Diagnosis Codes)
 - P29.4** Transient myocardial ischemia in newborn
 - P29.81** Cardiac arrest of newborn

- 4) Remove the following 100 diagnosis codes from Group 2A: Congenital Malformations (includes disorders and syndromes)
 - E80.6** Other disorders of bilirubin metabolism
 - Q10.5** Congenital stenosis and stricture of lacrimal duct
 - Q16.0** Congenital absence of (ear) auricle
 - Q16.1** Congenital absence, atresia and stricture of auditory canal (external)
 - Q16.2** Absence of eustachian tube
 - Q16.3** Congenital malformation of ear ossicles
 - Q16.4** Other congenital malformations of middle ear
 - Q16.5** Congenital malformation of inner ear
 - Q16.9** Congenital malformation of ear causing impairment of hearing, unspecified
 - Q17.0** Accessory auricle
 - Q17.1** Macrotia
 - Q17.3** Other misshapen ear
 - Q17.4** Misplaced ear
 - Q17.5** Prominent ear
 - Q17.8** Other specified congenital malformations of ear
 - Q17.9** Congenital malformation of ear, unspecified
 - Q27.0** Congenital absence and hypoplasia of umbilical artery
 - Q38.0** Congenital malformations of lips, not elsewhere classified
 - Q38.1** Ankyloglossia
 - Q38.3** Other congenital malformations of tongue
 - Q38.4** Congenital malformations of salivary glands and ducts

Q53.00	Ectopic testis, unspecified
Q53.01	Ectopic testis, unilateral
Q53.02	Ectopic testes, bilateral
Q53.10	Unspecified undescended testicle, unilateral
Q53.11	Abdominal testis, unilateral
Q53.12	Ectopic perineal testis, unilateral
Q53.20	Undescended testicle, unspecified, bilateral
Q53.21	Abdominal testis, bilateral
Q53.22	Ectopic perineal testis, bilateral
Q53.9	Undescended testicle, unspecified
Q54.0	Hypospadias, balanic
Q54.1	Hypospadias, penile
Q54.2	Hypospadias, penoscrotal
Q54.3	Hypospadias, perineal
Q54.4	Congenital chordee
Q54.8	Other hypospadias
Q54.9	Hypospadias, unspecified
Q55.0	Absence and aplasia of testis
Q55.1	Hypoplasia of testis and scrotum
Q55.20	Unspecified congenital malformations of testis and scrotum
Q55.21	Polyorchism
Q55.22	Retractile testis
Q55.23	Scrotal transposition
Q55.29	Other congenital malformations of testis and scrotum
Q55.3	Atresia of vas deferens
Q55.4	Other congenital malformations of vas deferens, epididymis, seminal vesicles and prostate
Q55.5	Congenital absence and aplasia of penis
Q55.61	Curvature of penis (lateral)
Q55.62	Hypoplasia of penis
Q55.63	Congenital torsion of penis
Q55.64	Hidden penis
Q55.69	Other congenital malformation of penis
Q55.7	Congenital vasocutaneous fistula
Q55.8	Other specified congenital malformations of male genital organs
Q55.9	Congenital malformation of male genital organ, unspecified
Q69.0	Accessory finger(s)
Q69.1	Accessory thumb(s)
Q69.2	Accessory toe(s)
Q69.9	Polydactyly, unspecified
Q70.00	Fused fingers, unspecified hand
Q70.01	Fused fingers, right hand
Q70.02	Fused fingers, left hand
Q70.03	Fused fingers, bilateral
Q70.10	Webbed fingers, unspecified hand
Q70.11	Webbed fingers, right hand
Q70.12	Webbed fingers, left hand
Q70.13	Webbed fingers, bilateral

Q70.20	Fused toes, unspecified foot
Q70.21	Fused toes, right foot
Q70.22	Fused toes, left foot
Q70.23	Fused toes, bilateral
Q70.30	Webbed toes, unspecified foot
Q70.31	Webbed toes, right foot
Q70.32	Webbed toes, left foot
Q70.33	Webbed toes, bilateral
Q70.4	Polysyndactyly, unspecified
Q70.9	Syndactyly, unspecified
Q82.1	Xeroderma pigmentosum
Q82.2	Mastocytosis
Q82.3	Incontinentia pigmenti
Q82.4	Ectodermal dysplasia (anhidrotic)
Q82.5	Congenital non-neoplastic nevus
Q82.8	Other specified congenital malformations of skin
Q82.9	Congenital malformation of skin, unspecified
Q83.0	Congenital absence of breast with absent nipple
Q83.1	Accessory breast
Q83.2	Absent nipple
Q83.3	Accessory nipple
Q83.8	Other congenital malformations of breast
Q83.9	Congenital malformation of breast, unspecified
Q84.0	Congenital alopecia
Q84.1	Congenital morphological disturbances of hair, not elsewhere classified
Q84.2	Other congenital malformations of hair
Q84.3	Anonychia
Q84.4	Congenital leukonychia
Q84.5	Enlarged and hypertrophic nails
Q84.6	Other congenital malformations of nails
Q84.8	Other specified congenital malformations of integument
Q84.9	Congenital malformation of integument, unspecified

5) Remove the two diagnosis codes from Group 2B: Other Fetal Placental Conditions (Diagnosis Codes)

P02.20	Newborn (suspected to be) affected by unspecified morphological and functional abnormalities of placenta
P02.29	Newborn (suspected to be) affected by other morphological and functional abnormalities of placenta

6) Remove the six diagnosis codes from Group 2C: Maternal Drug Use (Diagnosis Codes)

P04.1	Newborn (suspected to be) affected by other maternal medication
P04.2	Newborn (suspected to be) affected by maternal use of tobacco
P04.5	Newborn (suspected to be) affected by maternal use of nutritional chemical substances
P04.6	Newborn (suspected to be) affected by maternal exposure to environmental chemical substances

- P04.8** Newborn (suspected to be) affected by other maternal noxious substances
P04.9 Newborn (suspected to be) affected by maternal noxious substance, unspecified
- 7) Remove the following eight diagnosis codes from Group 4D: Moderate Birth Trauma with specific Los Requirement (>4D CS or >2D Vaginal) Diagnosis Codes
- P02.5** Newborn (suspected to be) affected by other compression of umbilical cord
 - P03.5** Newborn (suspected to be) affected by precipitate delivery
 - P03.6** Newborn (suspected to be) affected by abnormal uterine contractions
 - P03.810** Newborn (suspected to be) affected by abnormality in fetal (intrauterine) heart rate or rhythm
 - P03.811** Newborn (suspected to be) affected by abnormality in fetal (intrauterine) heart rate or rhythm
 - P03.819** Newborn (suspected to be) affected by abnormality in fetal (intrauterine) heart rate or rhythm
 - P03.89** Newborn (suspected to be) affected by other specified complications of labor and delivery
 - P03.9** Newborn (suspected to be) affected by complication of labor and delivery, unspecified
- 8) Move this diagnosis code from Group 4A: Moderate Birth Trauma (Diagnosis Codes) to Group 4D: Moderate Birth Trauma with specific LOS requirement (Diagnosis Codes)
- P13.4** Fracture of clavicle due to birth injury
- 9) Move this procedure code from Group 4C: Moderate Respiratory Complication (Procedure Codes) to Group 4G: Moderate Respiratory Complications with specific LOS requirement (Procedure Codes)
- 5A09357** Assistance with Respiratory Ventilation, Less than 24 Consecutive Hours, Continuous Positive Airway Pressure
- 10) Remove these 7 diagnosis codes from Group 3B: Severe Hypoxia Asphyxia (Diagnosis Codes)
- G80.0** Spastic quadriplegic cerebral palsy
 - G80.1** Spastic diplegic cerebral palsy
 - G80.2** Spastic hemiplegic cerebral palsy
 - G80.3** Athetoid cerebral palsy
 - G80.4** Ataxic cerebral palsy
 - G80.8** Other cerebral palsy
 - G80.9** Cerebral palsy, unspecified

*Current specifications available at www.cmqcc.org or in NPIC Quarterly Report specifications located on the member portal.