

สำนักงานกลางสารสนเทศบริการสุขภาพ (สภส.)



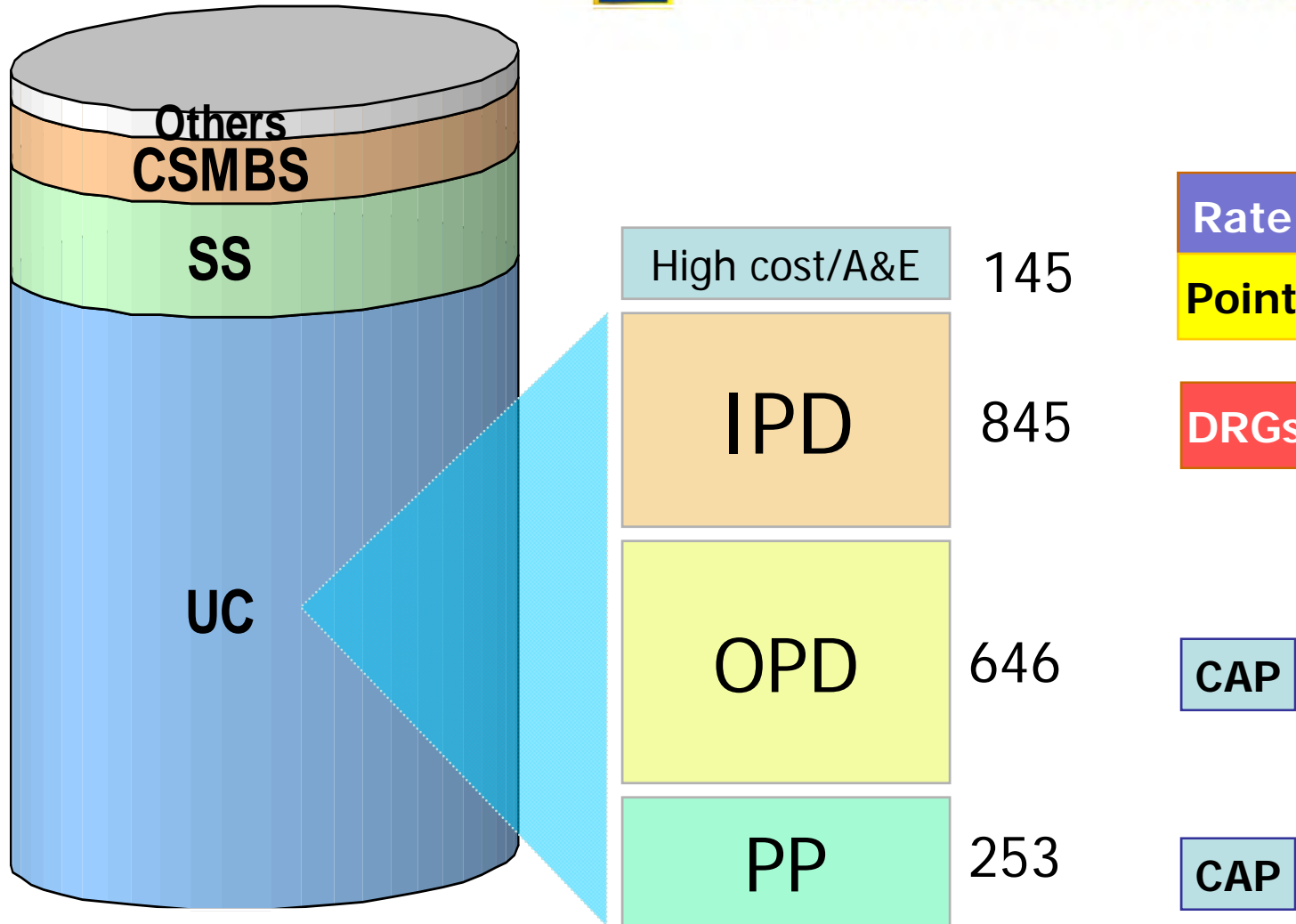
สถาบันวิจัยระบบสาธารณสุข

สิ่งที่คาดหวังสำหรับข้อมูลรหัสโรค/รหัสหัตถการ

- ☑ ถูกต้องตามกฎหมายของ ICD
 - Global rules: *Instruction manual (ICD -10 Vol .2), ICD-9-CM official guidelines*
 - Local rules: *Standard coding guidelines*
- ☑ ถูกต้องตามหลักเกณฑ์การตรวจข้อมูล: Edit(สกส.)
- ☑ ถูกต้องตามหลักเกณฑ์การเบิกจ่ายของกองทุน
- ☑ ถูกต้องตามทำนองครองธรรม



สำนักงานหลักประกันสุขภาพแห่งชาติ
National Health Security Office



46.6M



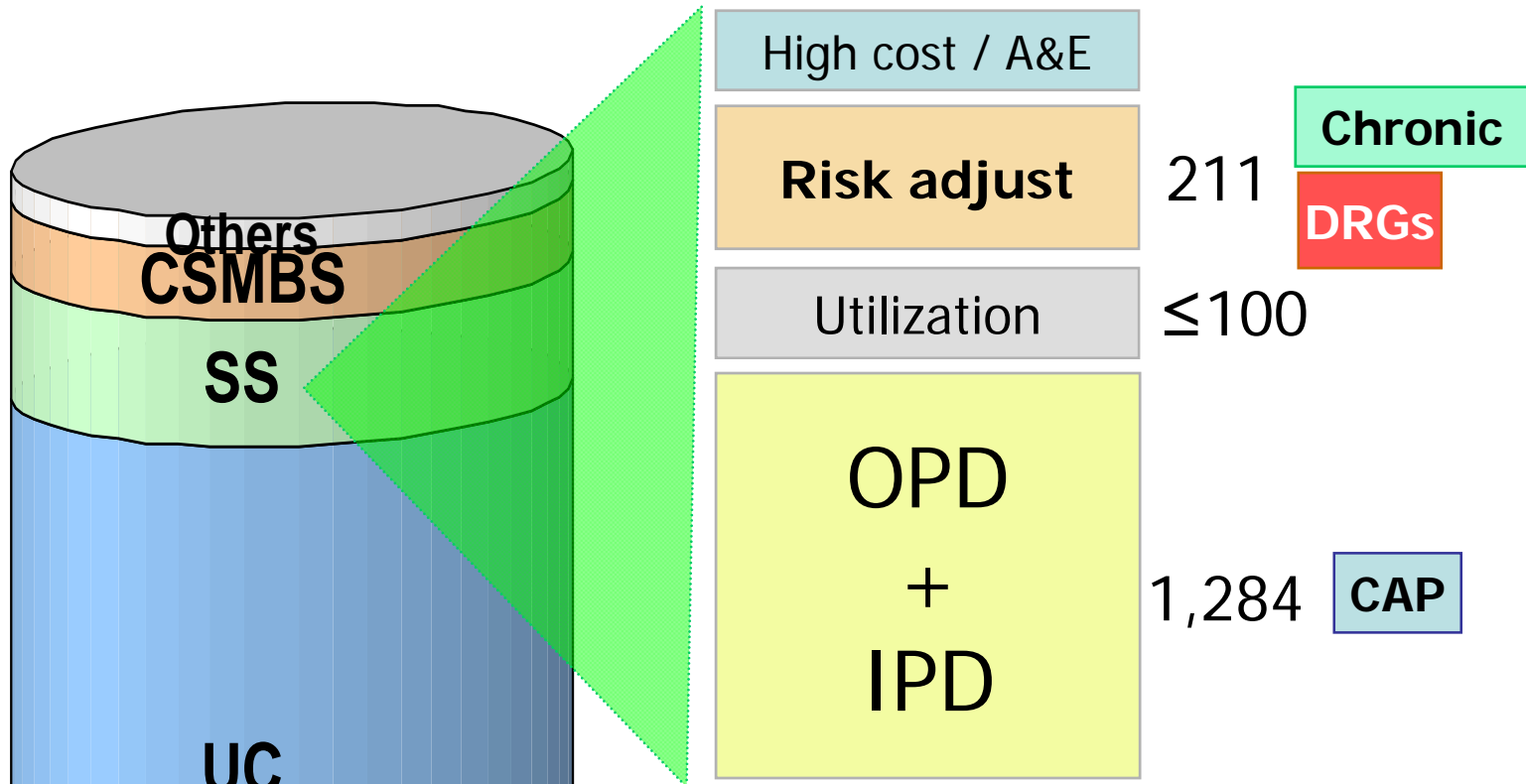
สรุปการจัดสรรงบประมาณจ่ายรายหัว

ประเภทบริการ	ปีงบประมาณ					
	2546	2547	2548	2549	2550	2551
1. บริการผู้ป่วยนอก (OP)	574	488.2	533.01	585.11	645.52	645.52
2. บริการผู้ป่วยใน (IP)	303	418.3	435.01	460.35	513.96	845.04
3. บริการส่งเสริมป้องกัน (PP)	175	206	210	224.89	248.04	253.01
4. บริการอุบัติเหตุ เจ็บป่วยฉุกเฉิน (AE)	25	19.7	24.73	52.07	51.02	44.61
5. บริการที่มีค่าใช้จ่ายสูง (HC) +DMIS	32	66.3	99.48	190	209.56	100.65
6. บริการการแพทย์ฉุกเฉิน (EMS)	6	10	6	6	10	12
7. บริการฟื้นฟูสมรรถภาพคนพิการ	4	-	4	4	4	4
8. งบซ่อมบำรุง/ทดแทนครุภัณฑ์สิ่งก่อสร้าง	83.4	85	76.8	129.25	142.55	143.74
9. งบจัดสรรให้พื้นที่ทุรกันดาร		10	7.07	7	30	30
10. เงินช่วยเหลือเบื้องต้นตามมาตรา 41		5	0.2	0.53	0.53	งบคงเหลือ
11. เงินช่วยเหลือเบื้องต้นผู้ให้บริการ					0.40	0.40
12. คุณภาพบริการ					20	20
13. สมทบค่าบริการแพทย์แผนไทย/ทางเลือก						1
13. ชดเชยยกเลิกเก็บค่าธรรมเนียม 30 บาท					24.11	
รวม (บาท/ประชากร)	1,202.40	1,308.50	1,396.30	1,659.20	1,899.69	2,100

หลักเกณฑ์การจ่ายเงินด้วย DRGs



- ✓ เริ่มใช้กับผู้ป่วยในตั้งแต่ปีงบประมาณ 2547
- ✓ ปัจจุบันใช้ ThaiDRGs version 4.0
- ✓ DRG payment under global budget
 - Base rate ขึ้นกับกองทุนเขต (ในเขต)
 - A/E ข้ามเขต, ส่งต่อ ใช้ Fixed rate
- ✓ ค่าใช้จ่ายนอก DRGs = Additional payment
 - ค่าอวัยวะเทียมและอุปกรณ์ฯ
 - Acute dialysis, Cryptococcal meningitis in HIV
 - Special project, Disease management program



หลักเกณฑ์ เงื่อนไข การจ่ายเงินค่าบริการทางการแพทย์ตามภาระเสี่ยง

๑. สำนักงานจะจ่ายค่าบริการทางการแพทย์ให้แก่สถานพยาบาล ในอัตราสองร้อยห้าบาท สำหรับสถานพยาบาลที่ต้องรับภาระกรณีโรคที่มีภาระเสี่ยงของผู้ป่วยนอกและผู้ป่วยใน

๒. ค่าบริการทางการแพทย์สำหรับผู้ป่วยนอกกำหนดบัญชีรายการโรคเรื้อรังดังนี้

๒.๑ โรคเบาหวาน (Diabetes mellitus)

๒.๒ โรคความดันโลหิตสูง (Hypertension)

๒.๓ โรคตับอักเสบเรื้อรังและโรคตับแข็ง (Chronic hepatitis, Cirrhosis of liver)

๒.๔ โรคภาวะหัวใจล้มเหลว (Congestive heart failure)

๒.๕ โรคเส้นเลือดสมองแตก/อุดตัน (Cerebrovascular accident)

๒.๖ โรคมะเร็ง (Malignancy)

๒.๗ โรคภูมิคุ้มกันบกพร่อง (AIDS)

๒.๒๑ โรคฮีโมฟีเลีย (Hemophilia)

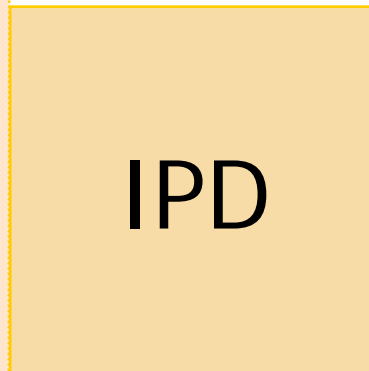
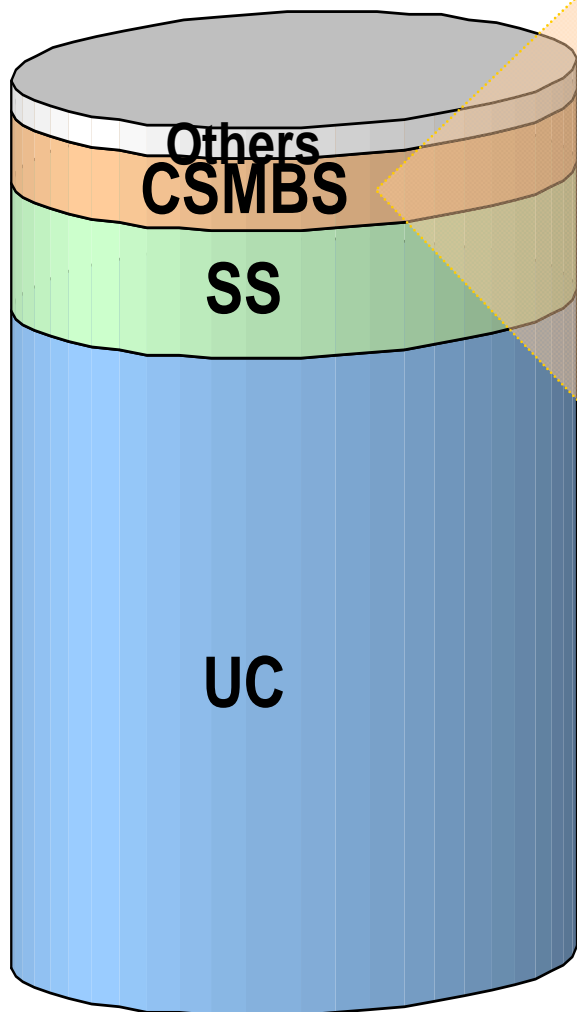
๒.๒๒ โรคเรื้อนกวาง (Psoriasis)

๒.๒๓ โรคผิวหนังพุพองเรื้อรัง (Chronic vesiculobullous disease)

๒.๒๔ โรคเลือด ไอทีพี (ITP)

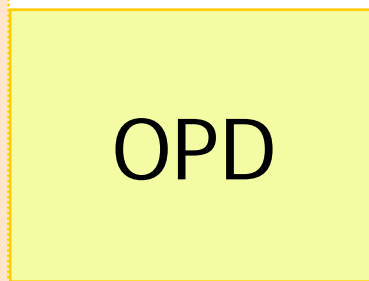
๒.๒๕ โรคต่อมไทรอยด์เป็นพิษ (Thyrotoxicosis)

๓. ค่าบริการทางการแพทย์สำหรับผู้ป่วยในจะคำนวณภาระการรักษาผู้ป่วยในทุกราย โดยคำนวณผลรวมของคะแนนน้ำหนักสัมพัทธ์ (DRG)



Room & Accom.
Prostheses &..
Cancer chemoRx

DRGs



Fee for
service



กรมบัญชีกลาง

หลักเกณฑ์การจ่ายเงินด้วย DRGs

- ☑ เริ่มใช้กับผู้ป่วยในที่จำหน่ายตั้งแต่ 1 กค.2550
- ☑ เริ่มจากใช้ ThaiDRGs version 3.3
- ☑ 1 มค.51 เริ่มใช้ ThaiDRGs version 4
- ☑ Base rate จากข้อมูลประวัติศาสตร์ของแต่ละ รพ.
→ กำหนดอัตราตามกลุ่ม รพ.
- ☑ ค่าใช้จ่ายนอก DRGs
 - ◎ ค่าห้อง/ค่าอาหาร
 - ◎ ค่าอวัยวะเทียมและอุปกรณ์ฯ
 - ◎ ค่ารักษามะเร็งตามรายการที่กำหนด

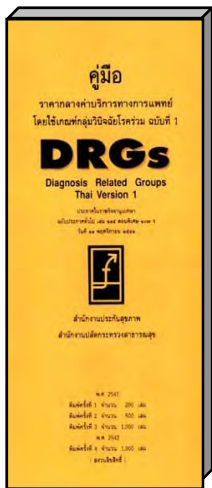


DRGS

Diagnosis Related Groups

- Patient classification system
(a type of Casemix system)
- Disease +Treatment
- Iso-resource group
- Inpatient case only

2541



2544



2545



2550



Thai DRGs

Thai DRGs

Version	Refined	Diagnosis code	Procedure code	Groups	Implement
1	No	ICD-10 (WHO) 1992	ICD-9-CM 2000	511	พย.2541
2	No	ICD-10 (WHO) 1992	ICD-9-CM 2000	511	กพ.2544
3	3.0	5 levels ICD-10 (WHO) 1992	ICD-9-CM 2000	1,283	ตค.2546
	3.1	5 levels ICD-10 (WHO) 1992	ICD-9-CM 2000	1,283	เมย.2548
	3.3	5 levels ICD-10 (WHO) 2005	ICD-9-CM 2005	1,283	กพ.2549
	3.5	5 levels ICD-10 (WHO) 2005	ICD-9-CM 2005	1,467	-
4	5 levels	ICD-10 (WHO) 2007 + ICD-10-TM*	ICD-9-CM 2007 with extension	1,920	ตค.2550

** For data entry only (not for new classification)*

ข้อมูลในการจัดกลุ่ม Thai DRG

- โรคหลัก
- การวินิจฉัยอื่นๆ
 - โรคแทรก (Complication)
 - โรคร่วม (Comorbidities)
- การผ่าตัดและหัตถการ → ICD-9-CM (Procedure)
- อายุ
- ประเภทการจำหน่ายผู้ป่วย
- จำนวนวันนอน รพ. (Admit/Discharge/Leave day)
- น้ำหนักเด็กแรกเกิด (แรกรับ)

ICD-10

Allocation of DRG

General principle

Principal
Diagnosis

ICD10

Secondary
Diagnoses

ICD-9-CM

OR Procedure

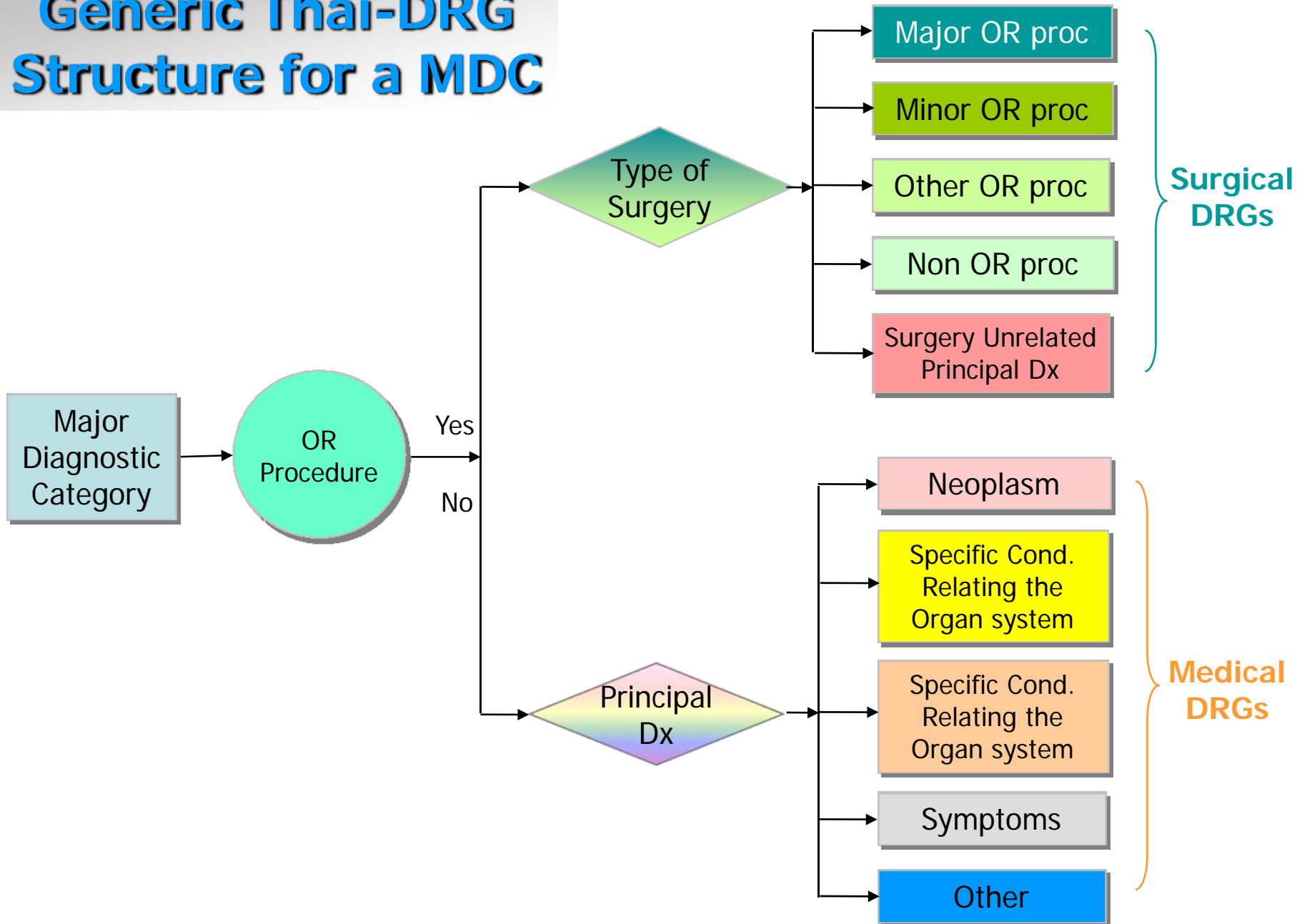
Age,
Discharge type,...

Major
Diagnostic
Category

DRG



Generic Thai-DRG Structure for a MDC



ข้อมูลในการจัดกลุ่ม Thai DRG

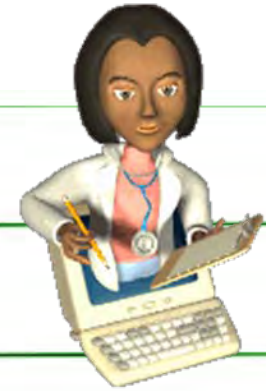
รหัสการวินิจฉัยโรค (PDX & SDx)

- ใช้รหัส ICD-10 WHO (2007) และ ICD-10-TM (2007) ที่เพิ่มจาก WHO 1,053 รหัส โดยมีคำว่า "(TM)" ต่อท้าย Description
- PDX มีได้ 1 รหัสเท่านั้น
- SDx มีได้ 0 ถึง 12 รหัส

รหัสการผ่าตัดและหัตถการ (Procedure, Proc)

- ใช้ รหัส ICD-9-CM (2007)
- แต่ละรายมีได้ 0 ถึง 20 รหัส
- แต่ละรหัสอาจมีส่วนขยาย (Extension) เพื่อระบุการทำหลายครั้งหรือตำแหน่ง แต่ต้องบันทึกให้ถูกต้องตามข้อกำหนดในหนังสือ

Discharge summary



DIAGNOSIS	22	(1) PRINCIPAL DIAGNOSIS			
		(2) COMORBIDITY			
		(3) COMPLICATION(S)			
		(4) OTHER DIAGNOSIS			
		(5) EXTERNAL CAUSE(S) OF INJURY			
OPERATION	23	OPERATING ROOM PROCEDURES	DATE	TIME IN	TIME OUT
		1. ....	.....	.....	.....
		2. ....	.....	.....	.....
		3. ....	.....	.....	.....
		4. ....	.....	.....	.....
24	NON OPERATING ROOM PROCEDURES				
	1 ()	TRACHEOSTOMY			
	2 ()	RESPIRATOR SUPPORT			
	3 ( )	.....		

Thai DRGs version 4

- Base on version 3: Edits, MDC, CCs, ...
- Multiple & repeated procedures
- Different technology
 - Laparoscopic vs Opened procedure
 - Endovascular procedure
- Levels of Non to Extensive OR procedure
- Malignancy
- All Asterisk codes → Unacceptable PDx
- ...

ICD-9-CM 2007

CLASSIFICATION OF PROCEDURES

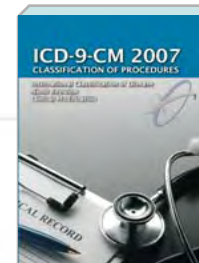
International Classification of Disease
Ninth Revision
Clinical Modification



ICD-9-CM
(Procedure)

CAL RECORD

N
E
N
N
K



Non-OR procedure

31 Other operations on larynx and trachea

31.0 Injection of larynx

Injection of inert material into larynx or vocal cords

31.1 Temporary tracheostomy

Tracheotomy for assistance in breathing

31.2 Permanent tracheostomy

31.21 Mediastinal tracheostomy

31.29 Other permanent tracheostomy

Excludes: that with laryngectomy [\(30.3-30.4\)](#)

31.3 Other incision of larynx or trachea

Excludes: that for assistance in breathing [\(31.1-31.29\)](#)

31.4 Diagnostic procedures on larynx and trachea

31.41 Tracheoscopy through artificial stoma

Excludes: that with biopsy [\(31.43-31.44\)](#)

68



OR procedure



Non OR procedure but affects ThaiDRG

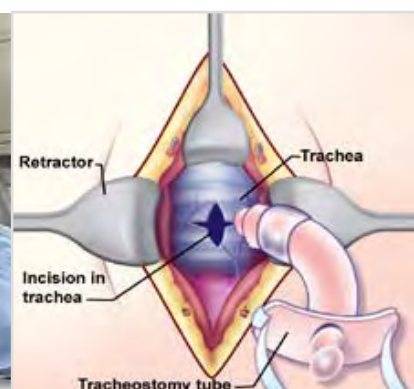
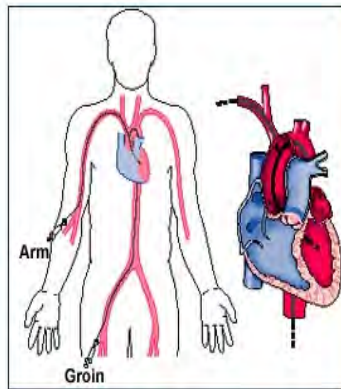
Non-OR procedure
affect DRG

OR procedure

Non OR procedure affect ThaiDRGs



- Radiosurgery
- Extraction & restoration, tooth
- Continuous mechanical ventilation
- Cardiac diagnostic procedure
- Skin & subcutaneous tissue procedure
- Endoscope
- Tracheostomy



MDC 14

Obstetric procedure

720	Low forceps operation
721	Low forceps op w episiotomy
7221	Mid forceps op w episiotomy
7229	Other mid forceps operation
7231	High forceps op w episiotomy
7239	Other high forceps operation
724	Forceps rotation of fetal head
7251	Partial breech ext w forceps
7252	Other partial breech extraction
7253	Total breech ext w forceps
7254	Other total breech ext w forceps
7271	Vacuum extraction w episiotomy
7279	Other vacuum extraction
7321	Internal & combined version wo ext
7322	Internal & combined version w ext
733	Failed forceps
7351	Manual rotation fetal head

7359	Other manual assist delivery
738	Op on fetus to facilitate delivery
7391	External version
7392	Replaced prolapsed umbilical cord
750	Intra-amniotic injection for abortion
751	Diagnostic amniocentesis
752	Intrauterine transfusion
7531	Amnioscopy
7533	Fetal blood sampling & biopsy
7537	Amnioinfusion
754	Manual removal of retained placenta
7562	Repair current OB laceration rectum
7569	Rep oth curr OB laceration
757	Manual explore uterine cavity, PP
7591	Evac OB incision hematoma perineum
7592	Evac other hematoma vulva/vagina
7594	Manual replacement of inverted uterus

MDC 15 Minor procedures for newborns

0102 Ventriculopuncture through catheter

0109 Other cranial puncture

0331 Spinal tap

247 Apply orthodontic appliance

3401 Incision of chest wall

3404 Insertion of ICD

3491 Thoracentesis

3891 Arterial catheterization

3892 Umbilical vein cath

3893 Venous catheterization

3894 Venous cutdown

5491 Paracentesis

5751 Excision of urachus

8871 Diag US of head & neck

8872 Diag US of heart

9390 CPAP

9671 Cont mech vent < 96 hrs

9901 Exchange transfusion

9960 CPR

9962 Other electric countershock of heart

Other MDC



- | | | |
|------|---------------------------------------|----------|
| 9427 | Other electroshock therapy | (MDC 19) |
| 9851 | ESWL: kidney/ ureter /bladder | (MDC 11) |
| 9910 | Thrombolytic injection / infusion | (MDC 5) |
| 9920 | Platelet inhibitor injection/infusion | (MDC 5) |

รหัสหัตถการนอกห้องผ่าตัดที่มีผลต่อ Thai DRG V 4 ที่ต่างจากใน Version 3

เพิ่ม

- 147 รหัส
- ส่วนใหญ่เพิ่มเพื่อรองรับ การจัดกลุ่มผู้ป่วยโรคมะเร็ง
 - Closed biopsy
 - Special investigation: CT, MRI, U/S,...
 - Blood (& components) transfusion
- รหัสใหม่ของปี 2006-7
- รหัสอื่นๆ อีกเล็กน้อย เช่น 99.14, 99.15



ยกเลิก

- 73.51 Manual rotation fetal head
- 73.59 Oth manual assist delivery
- 75.69 Rep oth curr OB laceration



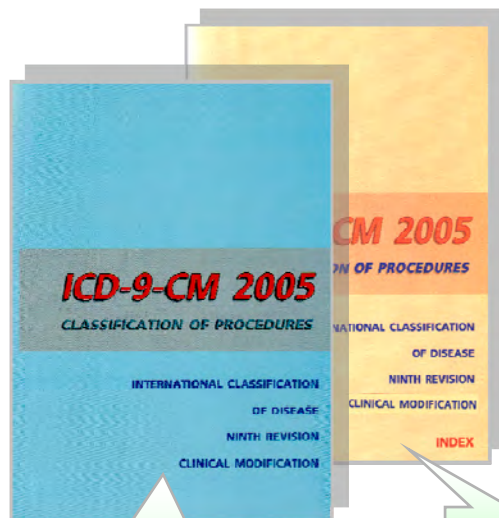
Update ICD-9-CM procedure to 2007

73 New codes 1 ตค. 2550

21 Revised code titles

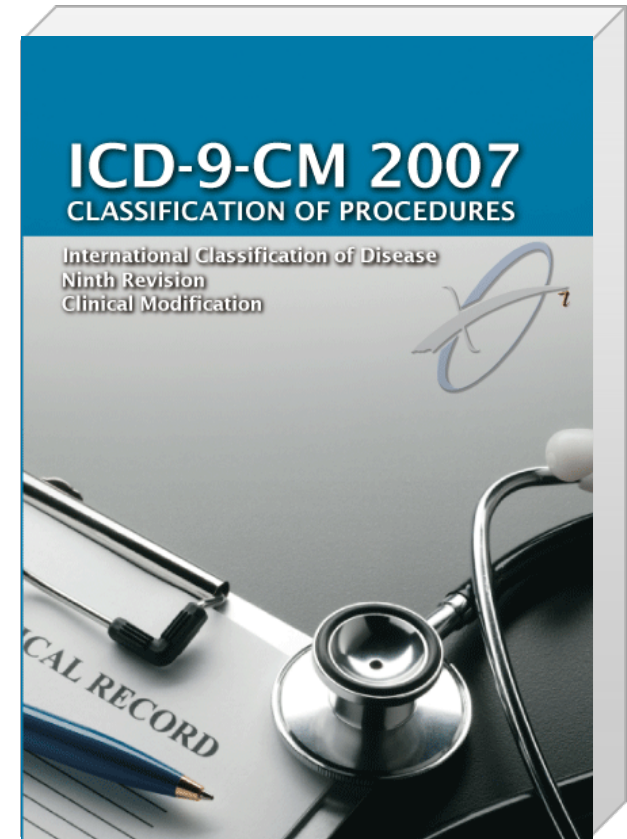
??? Revise others

9 Invalid codes 1 ตค. 2551



Tabular list

Index



ยกเลิกการใช้รหัส ICD-9-CM 9 รหัส

9 Invalid procedure codes

36.01	Single vessel PTCA or coronary atherectomy w/o mention of thrombolytic agent.
36.02	Single vessel PTCA or coronary atherectomy w mention of thrombolytic agent.
36.05	Multiple vessel PTCA or coronary atherectomy performed during the same operation, w or w/o mention of thrombolytic agent.
37.4	Repair of heart and pericardium
81.61	360 degree spinal fusion, single incision approach
13.9	Other operations on lens
68.4	Total abdominal hysterectomy
68.6	Radical abdominal hysterectomy
68.7	Radical vaginal hysterectomy

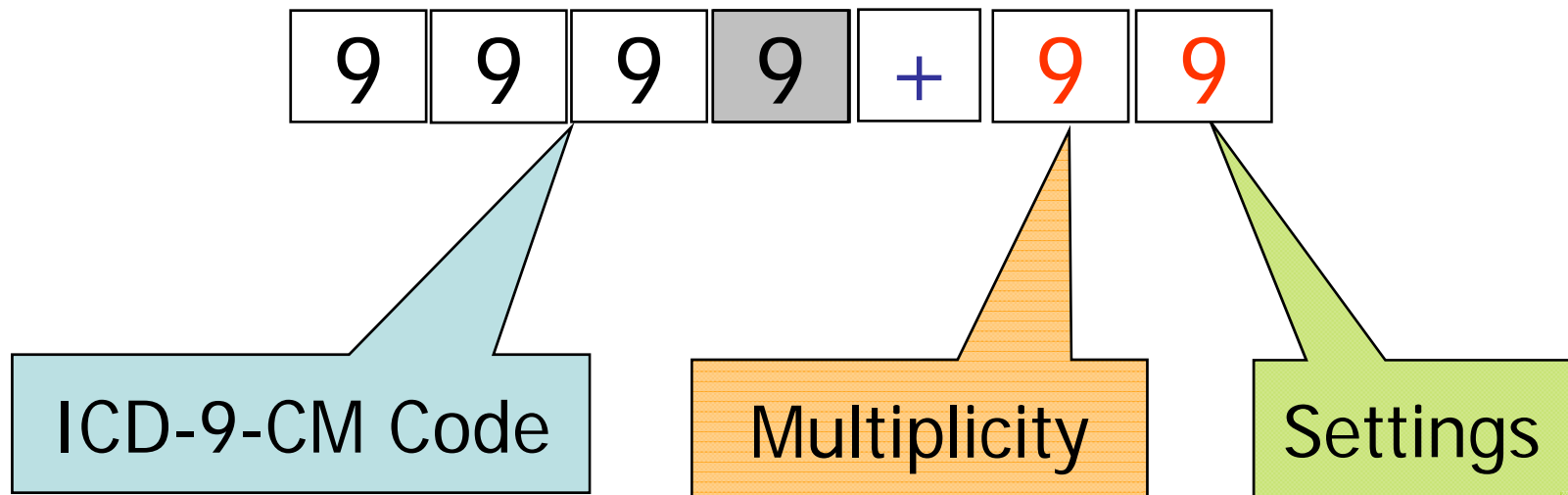
ตั้งแต่วันที่ 1 ตุลาคม 2551



ICD-9-CM Extension Codes

- ThaiDRG version 3 ไม่สามารถแยกแยะ Multiple หรือ Bilateral procedure ได้
- รหัสหัตถการปัจจุบัน(ส่วนใหญ่)ไม่ได้แสดงถึงจำนวนแห่ง/ข้าง
- การใส่รหัสซ้ำกันเพื่อแสดงการทำหลายครั้งมีปัญหาในด้านการจัดการข้อมูล

ICD-9-CM Extension Codes



รายละเอียดใน Thai DRGs Version 4.0 Volume 1 หน้า 7

ตัวอย่าง ผ่าตัดต้อกระจกด้วยเครื่องสลายต้อ 2 ข้างพร้อมกันในการผ่าตัดครั้งเดียว

1 3 4 1 + 2 1

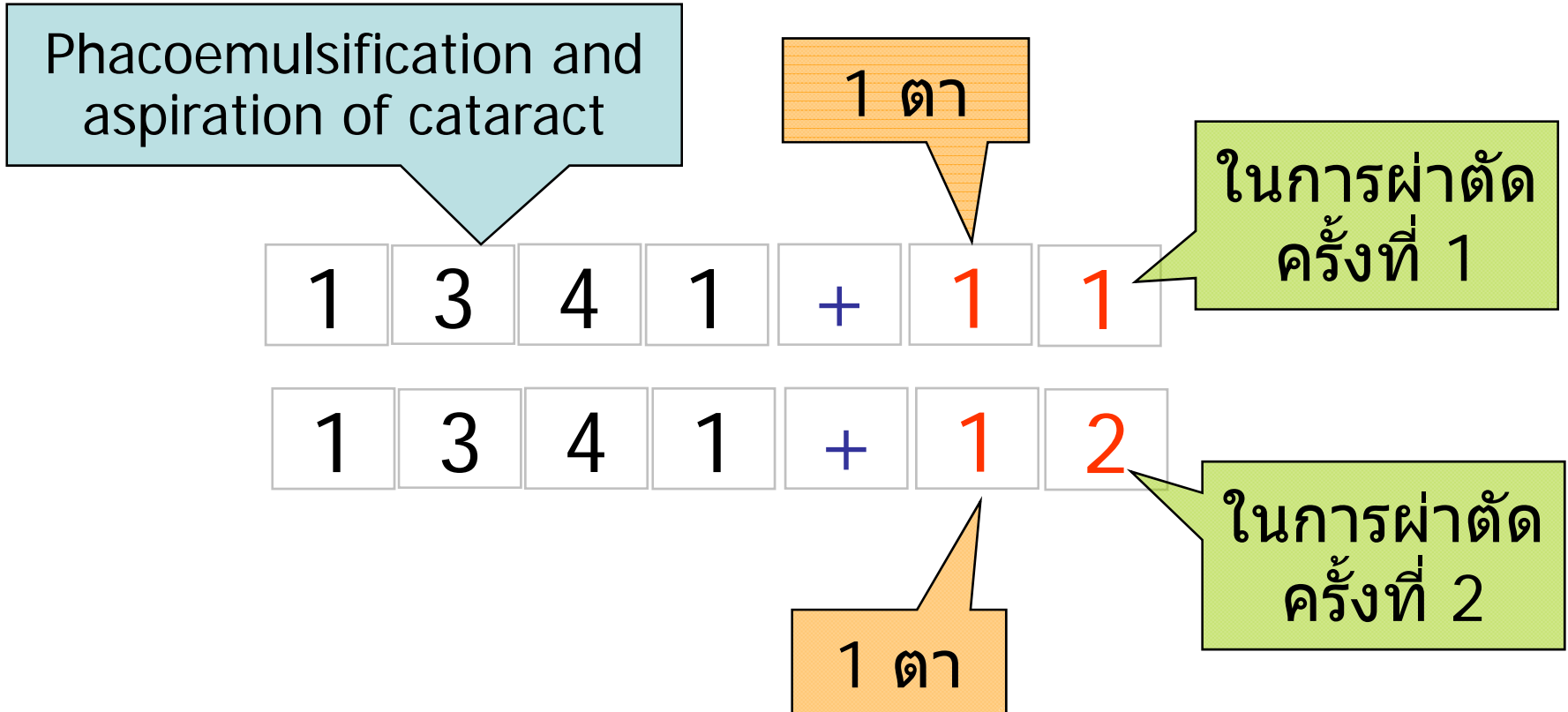
Phacoemulsification
and aspiration of
cataract

2 ตา

ในการผ่าตัด
ครั้งที่ 1



ตัวอย่าง ผ่าตัดต้อกระจกด้วยเครื่องสลายต้อ 2 ข้าง ผ่าตัด 2 ครั้ง ใน Admission เดียวกัน



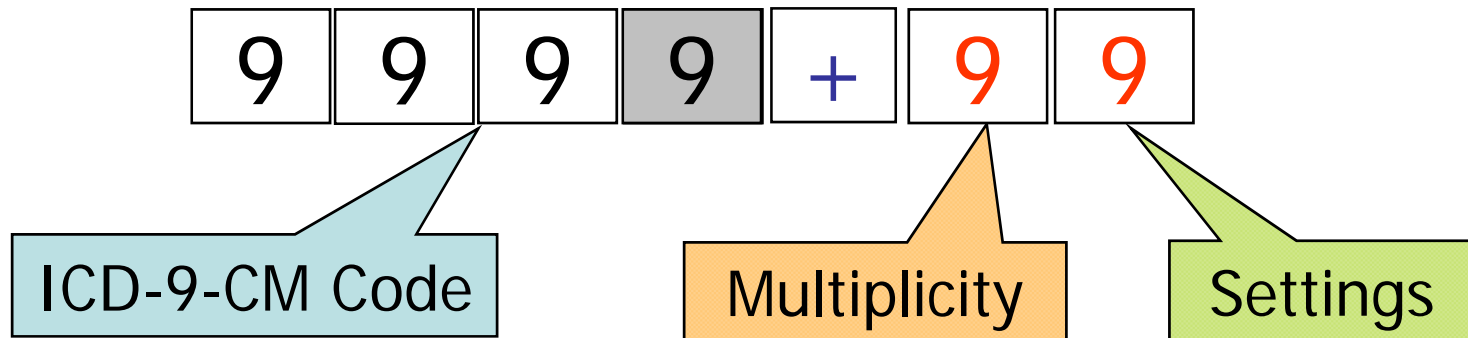
ตัวอย่างที่ 2 ผ่าตัดสมองหลายครั้ง/หลายตำแหน่ง

Summary	ICD-9-CM Code	ICD-9-CM ext Code
<p>Operation setting 1:</p> <p>(1) Craniotomy with removal of Extradural hematoma, Right temporal area</p> <p>(2) Craniotomy with removal of Extradural hematoma, left occipital area</p> <p>(3) Debridement of opened skull fracture, Right frontal area</p>	<p>0124 } 0124 } 0202</p>	<p>0124+21 0202+11</p>
<p>Operation setting 2:</p> <p>(1) Craniotomy with removal of Extradural hematoma, Left temporal area</p> <p>(2) Reopened Craniotomy with removal of Subdural hematoma, left occipital area</p>	<p>0124 0131</p>	<p>0124+12 0131+11</p>
<p>Operation setting 3:</p> <p>(1) Tracheostomy</p>	<p>311</p>	<p>311+11</p>

ตัวอย่างที่ 3 ตัดเนื้อตายและ ปลุกถ่ายผิวหนัง

Summary	ICD-9-CM Code	ICD-9-CM ext Code
Operation setting 1: (1) Excisional Debridement, both hand & abdomen	8622	8622+31
Operation setting 2: (1) Excisional Debridement, right hand	8622	8622+12
Operation setting 3: (1) Excisional Debridement, abdomen	8622	8622+13
Operation setting 4: (1) Skin graft (full thickness), both hand (2) Skin graft (full thickness), abdomen	8661 8664	8661+21 8664+11
Operation setting 5: (1) Skin graft (full thickness), Right hand (2) Excisional debridement, buttock	8661 8622	8661+12 8622+14

ICD-9-CM Extension Codes



ตัวอย่าง

การบันทึกรหัสที่มีส่วนขยายถูกต้อง

8622+11, 8622+12, 8622+13 (3 ครั้งๆ ละ 1 แห่ง)

8622, 8622+12, 8622+13 (3 ครั้งๆ ละ 1 แห่ง 8622 คือ 8622+11)

8622+21 (1 ครั้ง 2 แห่ง)

การบันทึกรหัสที่มีส่วนขยายผิดจากข้อกำหนด

8622+11, 8622+12, 8622+14 (ไม่ถูกเพราะมีการข้ามครั้งที่ 3)

8622, 8622+13 (ข้ามครั้งที่ 2)

8622+22 (ข้ามครั้งที่ 1)

Bilateral & Multiple site codes

Thyroid and parathyroid procedure	
06.4	Complete thyroidectomy
06.52	Complete substernal thyroidectomy
06.81	Complete parathyroidectomy
Adrenal procedure	
07.02	Bilateral exploration of adrenal field
07.3	Bilateral adrenalectomy

Lung transplantation	
33.52	Bilateral lung transplantation

Bilateral & Multiple site codes

Adjunct Vascular System Procedures	
00.40	Procedure on single vessel
00.41	Procedure on two vessels
00.42	Procedure on three vessels
00.43	Procedure on four or more vessels
00.45	Insertion of one vascular stent
00.46	Insertion of two vascular stents
00.47	Insertion of three vascular stents
00.48	Insertion of four or more vascular stents

Bilateral & Multiple site codes

Spinal fusion	
81.61	360 degree spinal fusion, single incision approach
81.62	Fusion or refusion of 2-3 vertebrae
81.63	Fusion or refusion of 4- 8 vertebrae
81.64	Fusion or refusion of 9 or more vertebrae

DRGs ที่ใช้ ICD-9-CM Extension codes ในการจัดกลุ่ม ThaiDRG V 4

DC	Desc
0112	Craniotomy (multiple) for trauma
0113	Craniotomy (multiple),
0211	Multiple major lens procedures
0212	Multiple other lens procedures
0801	Bilateral or multiple major joint proc of lower ext
0828	Multiple wound debride w skin graft exc hand for MS&CT
0830	Multiple wound debridement for MS&CT
0910	Skin graft and mult debride for ulcer or cellulitis



DRGs สำหรับกลุ่ม UN

26019 Extensive OR Proc unrelated to PDx

26029 Prostatic OR Proc unrelated to PDx

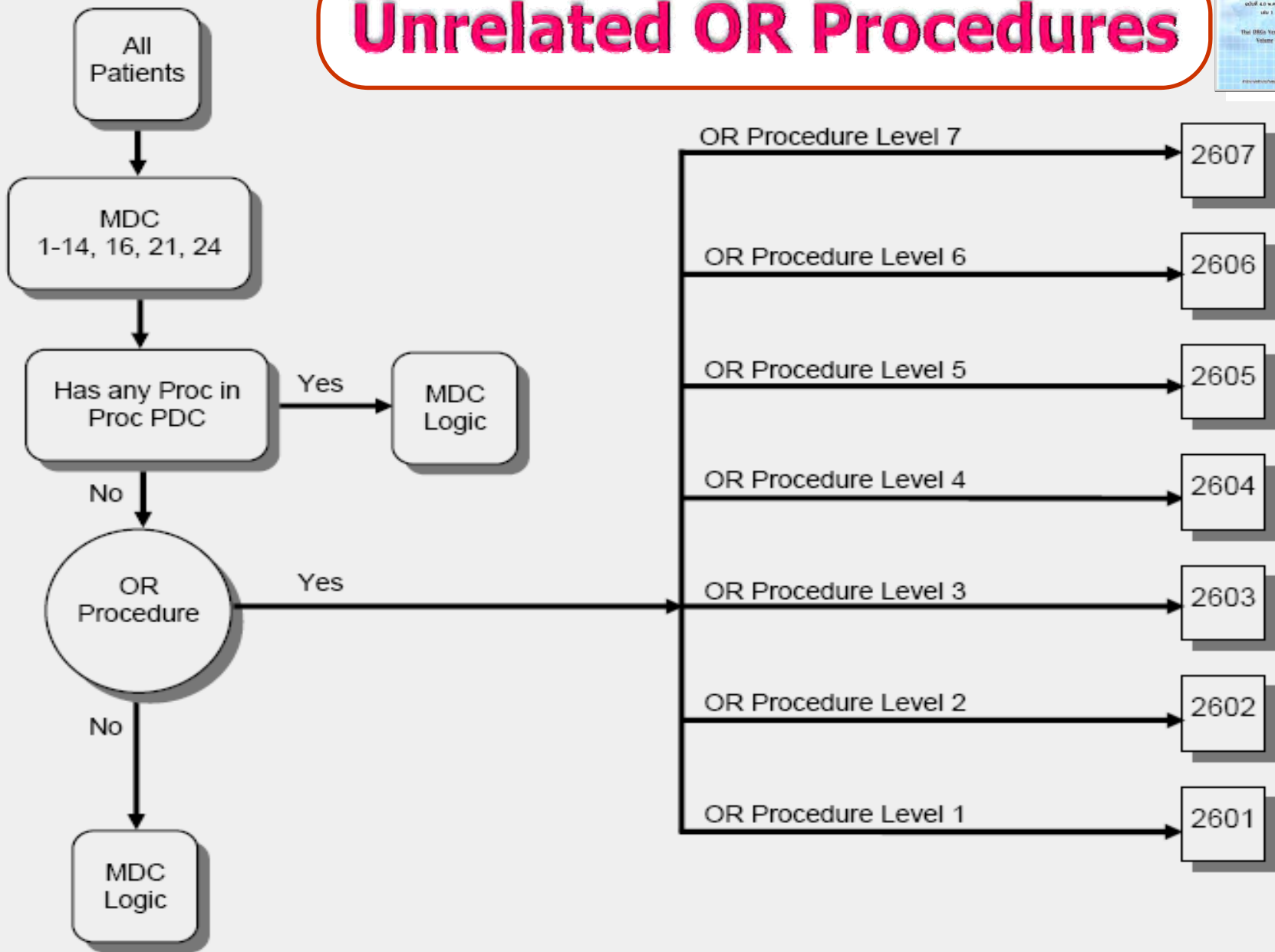
26039 Non-extensive OR Proc unrelated to PDx

26509 Ungroupable

26519 Unacceptable PDx

26529 Unacceptable OB Dx Combination

Unrelated OR Procedures





ThaiDRG V4

DRGs สำหรับกลุ่ม UN

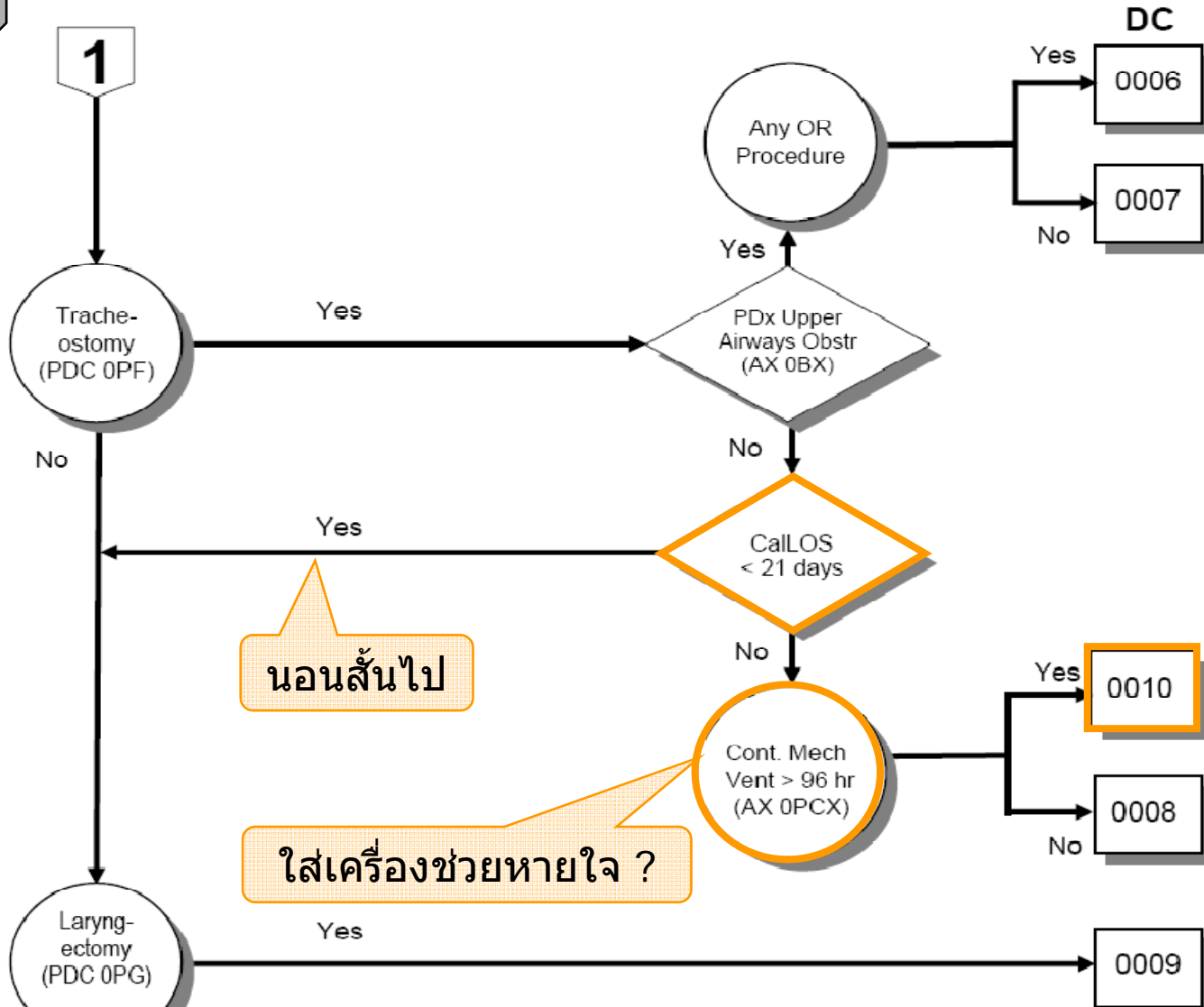
DRG	Description	RW
26010	OR Proc Level 1 Unrelated to PDx, no CC	0.9454
26012	OR Proc Level 1 Unrelated to PDx, w mild to mod CC	1.4621
26013	OR Proc Level 1 Unrelated to PDx, w severe CC	2.2082
26014	OR Proc Level 1 Unrelated to PDx, w catas CC	4.6753
26020	OR Proc Level 2 Unrelated to PDx, no CC	1.0366
26022	OR Proc Level 2 Unrelated to PDx, w mild to mod CC	1.9898
26023	OR Proc Level 2 Unrelated to PDx, w severe CC	2.5512
26024	OR Proc Level 2 Unrelated to PDx, w catas CC	4.9919
26030	OR Proc Level 3 Unrelated to PDx, no CC	1.5829
26032	OR Proc Level 3 Unrelated to PDx, w mild to mod CC	2.3554
26033	OR Proc Level 3 Unrelated to PDx, w severe CC	4.2358
26034	OR Proc Level 3 Unrelated to PDx, w catas CC	6.0089
26040	OR Proc Level 4 Unrelated to PDx, no CC	2.3167
26042	OR Proc Level 4 Unrelated to PDx, w mild to mod CC	3.5632
26043	OR Proc Level 4 Unrelated to PDx, w severe CC	5.2139
26044	OR Proc Level 4 Unrelated to PDx, w catas CC	7.3998
26050	OR Proc Level 5 Unrelated to PDx, no CC	3.3293
26052	OR Proc Level 5 Unrelated to PDx, w mild to mod CC	4.4196

PreMDC



Tracheostomy

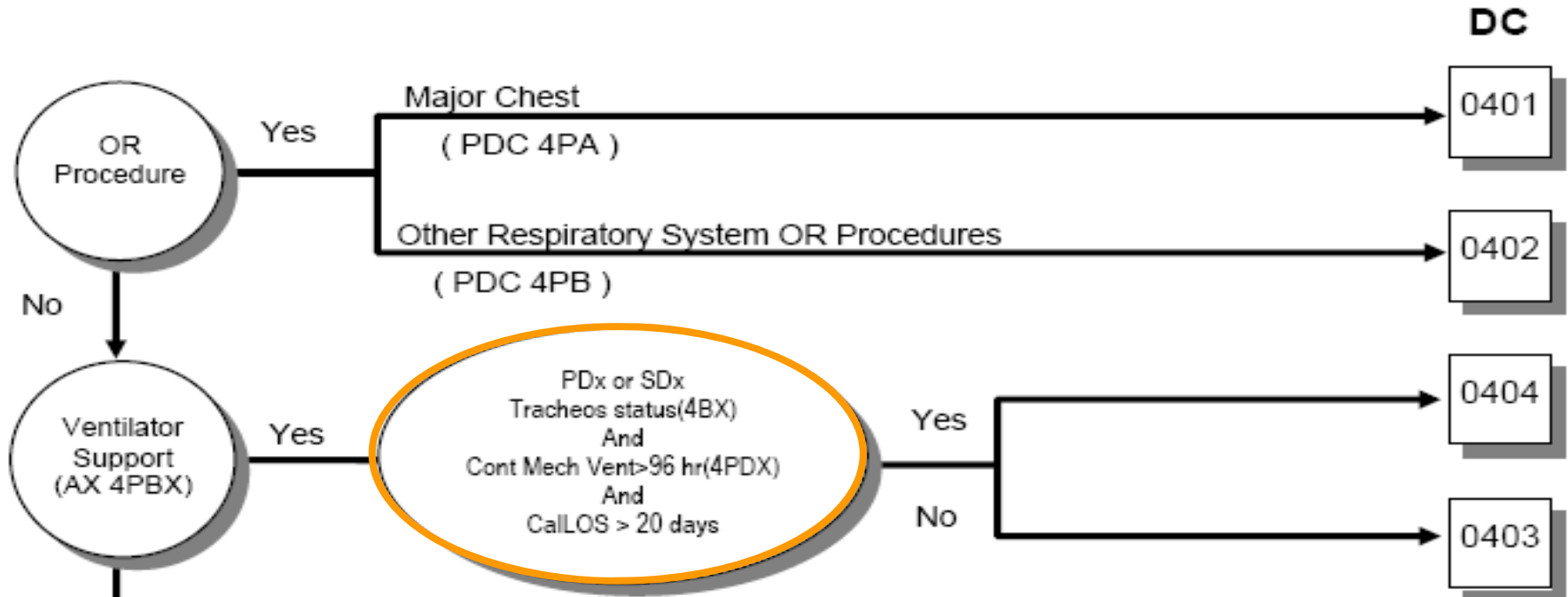
Pre MDC



Major Diagnostic Category 4

Diseases and Disorders of the Respiratory System

Surgical Partitioning



- 1.PDx or SDx:** Z430 Attention to tracheostomy **or** Z930 Tracheostomy status
- 2.Proc:** 9672 Cont mech vent 96+ hrs
- 3.CalLOS:** > 20 days



DRGs for Tracheostomy & Ventilatory support

DRG	RW	WtLOS	OT	OF	Description
00080	22.1953	47.55	136	0.41	Tracheostomy for oth cond, no CC
00082	24.3617	52.80	137	0.37	Tracheostomy for oth cond, w mild to mod CC
00083	26.5976	53.75	163	0.98	Tracheostomy for oth cond, w severe CC
00084	28.6397	59.21	166	0.98	Tracheostomy for oth cond, w catas CC
00100	22.4422	46.16	126	0.31	Trach for oth cond w mech vent 96+ hr, no CC
00102	25.3360	53.14	165	1.00	Trach for oth cond w mech vent 96+ hr, w mild to mod CC
00103	29.7915	54.33	179	1.00	Trach for oth cond w mech vent 96+ hr, w severe CC
00104	33.5929	62.27	187	1.00	Trach for oth cond w mech vent 96+ hr, w catas CC
04030	2.7688	7.72	30	0.75	Ventilator support, no CC
04032	4.0800	10.23	37	0.57	Ventilator support, w mild to mod CC
04033	4.6490	10.89	42	0.92	Ventilator support, w severe CC
04034	6.6194	13.01	52	0.86	Ventilator support, w catas CC
04049	25.6961	76.45	293	1.00	Trac status w prolong vent supp, w or wo CC

MDC 01



DRGs for Craniotomy

DRG	RW	WTLOS	OT	OF	Description
01010	3.9851	8.44	24	0.49	Craniotomy for trauma, no CC
01012	5.8500	10.56	36	0.28	Craniotomy for trauma, w mild to mod CC
01013	7.7522	13.00	41	0.15	Craniotomy for trauma, w severe CC
01014	9.0361	17.76	69	0.37	Craniotomy for trauma, w catastrophic CC
01020	5.8911	13.03	43	0.28	Craniotomy except for trauma, no CC
01022	7.0230	16.15	55	0.24	Craniotomy except for trauma, w mild to mod CC
01023	8.3306	17.97	66	0.17	Craniotomy except for trauma, w severe CC
01024	9.7548	27.73	103	0.98	Craniotomy except for trauma, w catastrophic CC

Same as V3



DRG for Craniotomy

New

DRG	RW	WTLOS	OT	OF	Description
01080	11.4823	15.83	43	0.17	Intracranial vascular proc for PDx intracranial hemorrhage, no CC
01083	14.1739	20.30	61	0.07	Intracranial vascular proc for PDx intracranial hemorrhage, w mild to sev CC
01084	15.3487	28.95	107	0.75	Intracranial vascular proc for PDx intracranial hemorrhage, w catas CC
01090	9.7593	7.47	29	0.13	Intracranial vascular procedures, no CC
01094	13.2411	20.93	78	0.91	Intracranial vascular procedures, w mild to cat CC
01109	22.9040	22.67	33	1.00	Open intracranial with endovascular proc for intracranial hemorrhage, w or wo CC
01119	9.1395	5.63	15	0.98	Open intracranial with endovascular procedures, w or wo CC
01129	17.1447	28.70	162	1.00	Craniotomy (multiple) for trauma, w or wo CC
01139	12.6458	34.73	88	1.00	Craniotomy (multiple), w or wo CC
01149	8.3103	5.24	31	0.50	Endovascular procedures, w or wo CC

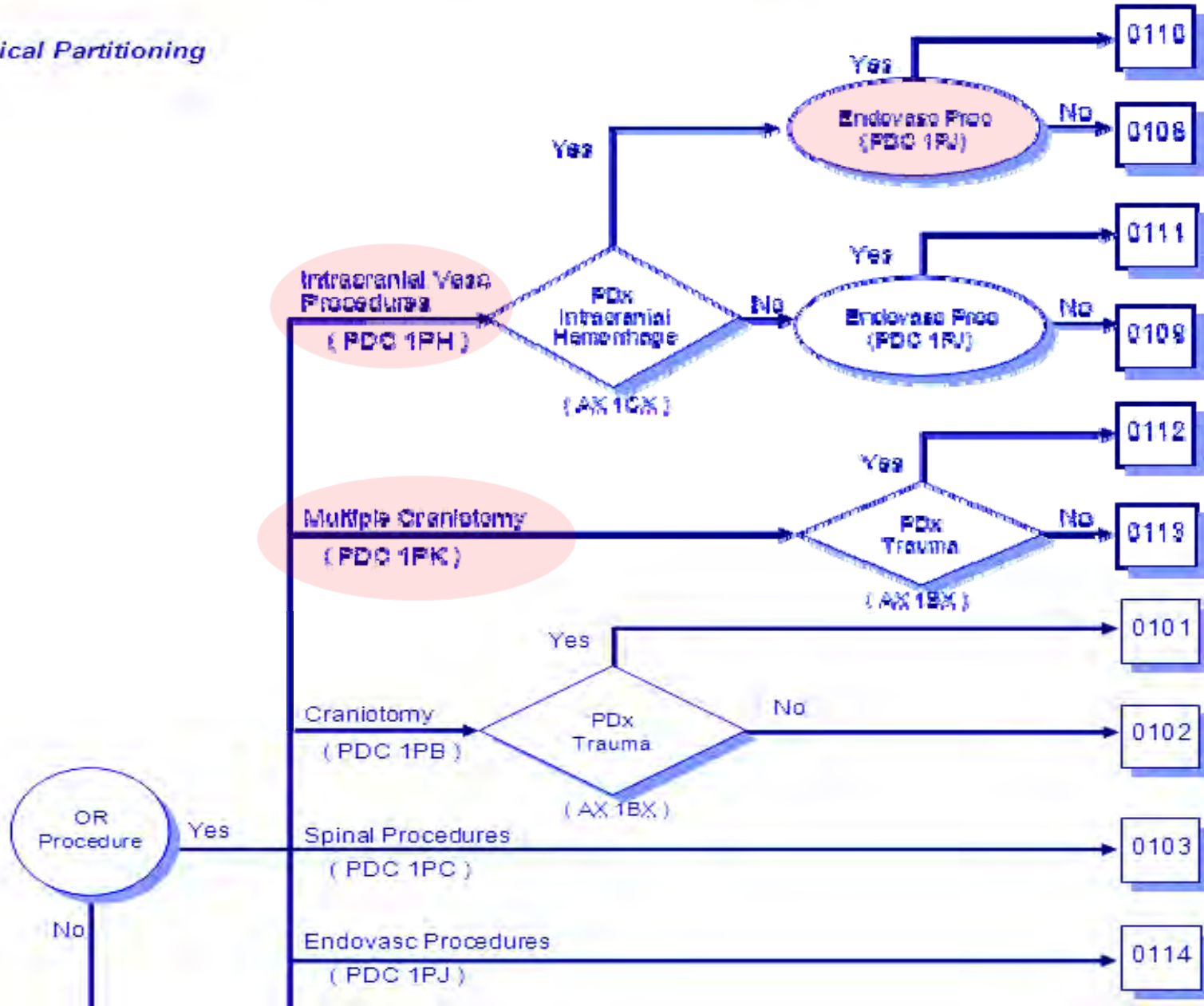


Major Diagnostic Category 1

Diseases and Disorders of the Nervous System

DC

Surgical Partitioning



Craniotomy/Craniectomy

✚ มีรหัสที่เกี่ยวข้องในหลายบท

- ➡ 1. Nervous system: Brain(01-02), Cranial nerve(04)
- ➡ 2. Endocrine System: Pineal(07), Pituitary(07)
- ➡ 7. Cardiovascular system: Intracranial vessels(38-39)

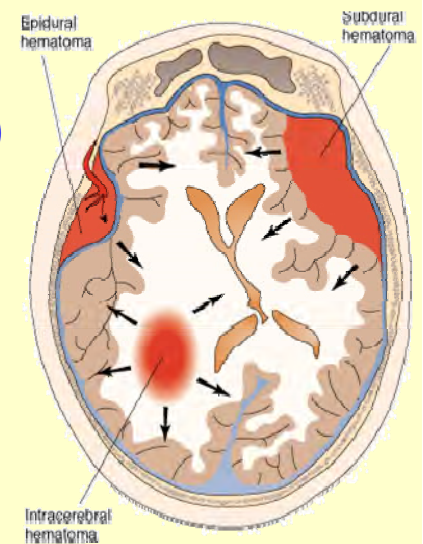
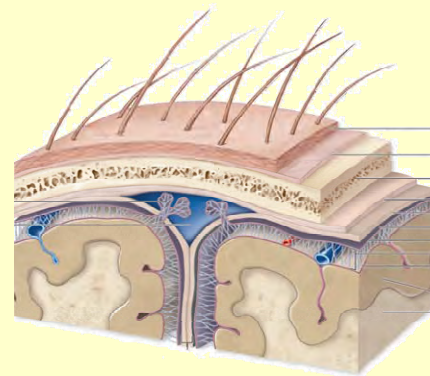
✚ Layers of operation

- Open skull, dura, brain

✚ Type of operation

- ➡ Exploration
- ➡ Incision → Removal/Drainage: Hematoma, Hygroma, Abscess
- ➡ Excision or destruction

✚ ส่วนใหญ่เป็น Omit code



Craniotomy [01.24](#)

as operative approach -- *omit code*
fetal [73.8](#)

for decompression of fracture [02.02](#)
reopening of site [01.23](#)

39.51 Clipping of aneurysm

Excludes: clipping of arteriovenous fistula ([39.53](#))

39.52 Other repair of aneurysm

Repair of aneurysm by:

- coagulation
- electrocoagulation
- filipuncture
- methyl methacrylate
- suture
- wiring
- wrapping

Excludes: endovascular repair of aneurysm ([39.71 - 39.79](#))

re-entry operation (aorta) ([39.54](#))

that with:

graft replacement ([38.40-38.49](#))

resection ([38.30-38.49](#), [38.60-38.69](#))

39.53 Repair of arteriovenous fistula

Embolization of carotid cavernous fistula

Repair of arteriovenous fistula by:

- clipping
- coagulation
- ligation and division

Excludes: repair of :

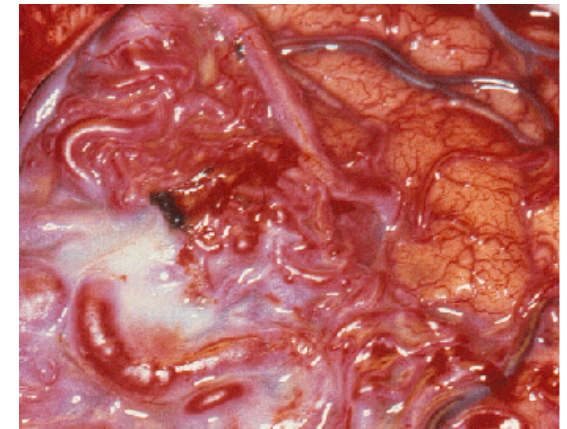
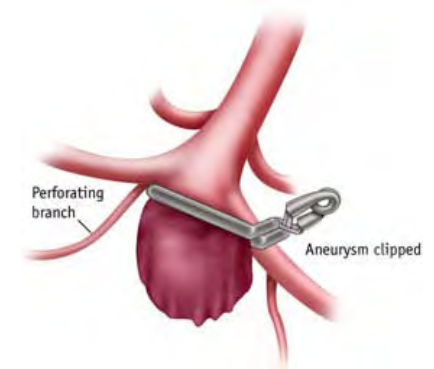
arteriovenous shunt for renal dialysis ([39.42](#))

head and neck vessels, endovascular approach ([39.72](#))

that with:

graft replacement ([38.40-38.49](#))

resection ([38.30-38.49](#), [38.60-38.69](#))



39.72 Endovascular repair or occlusion of head and neck vessels ®

Coil embolization or occlusion

Endograft(s)

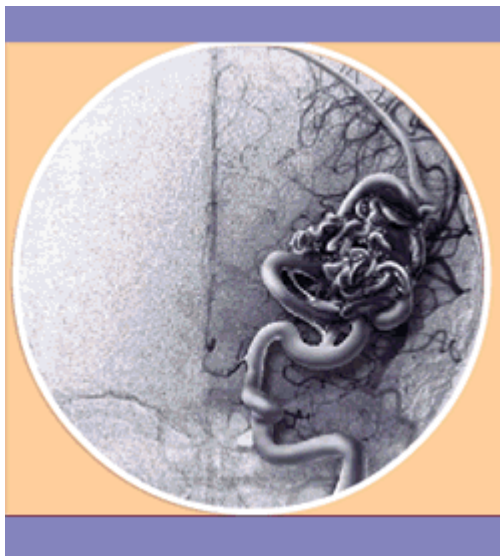
Endovascular graft(s)


Liquid tissue adhesive (glue) embolization or occlusion

Other implant or substance for repair, embolization or occlusion

That for repair of aneurysm, arteriovenous malformation [AVM] or fistula

Excludes: mechanical thrombectomy of pre-cerebral and cerebral vessels ([39.74](#))



39.74 Endovascular removal of obstruction from head and neck vessel(s) 

Endovascular embolectomy

Endovascular thrombectomy of pre-cerebral and cerebral vessels

Mechanical embolectomy or thrombectomy

Code also: any injection or infusion of thrombolytic agent ([99.10](#))

number of vessels treated ([00.40-00.43](#))

procedure on vessel bifurcation ([00.44](#))

Excludes: endarterectomy of intracranial vessels and other vessels of head and neck ([38.11 - 38.12](#))

occlusive endovascular repair of head or neck vessels ([39.72](#))

open embolectomy or thrombectomy ([38.01-38.02](#))





New Procedures: ICD-9-CM 2006-7

Intracerebral Catheter

01.26 Insertion of catheter(s) into cranial cavity or tissue

Excludes: placement of intracerebral catheter(s) via burr hole(s) (01.28)

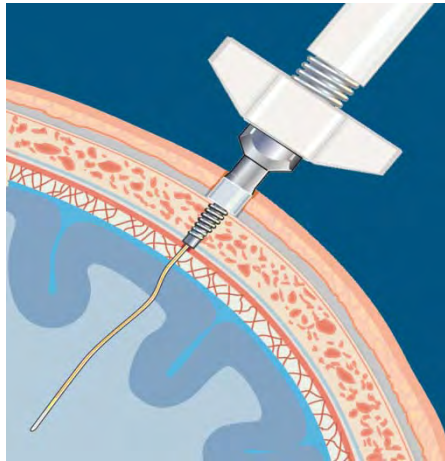
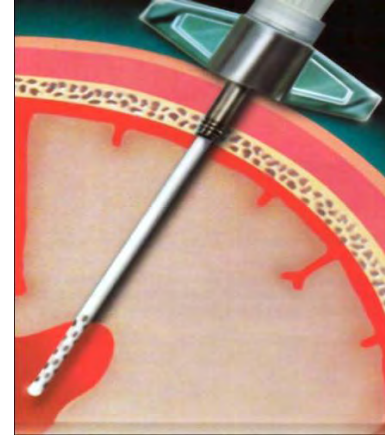
01.27 Removal of catheter(s) from cranial cavity or tissue

01.28 Placement on intracerebral catheter(s) via burr hole(s)

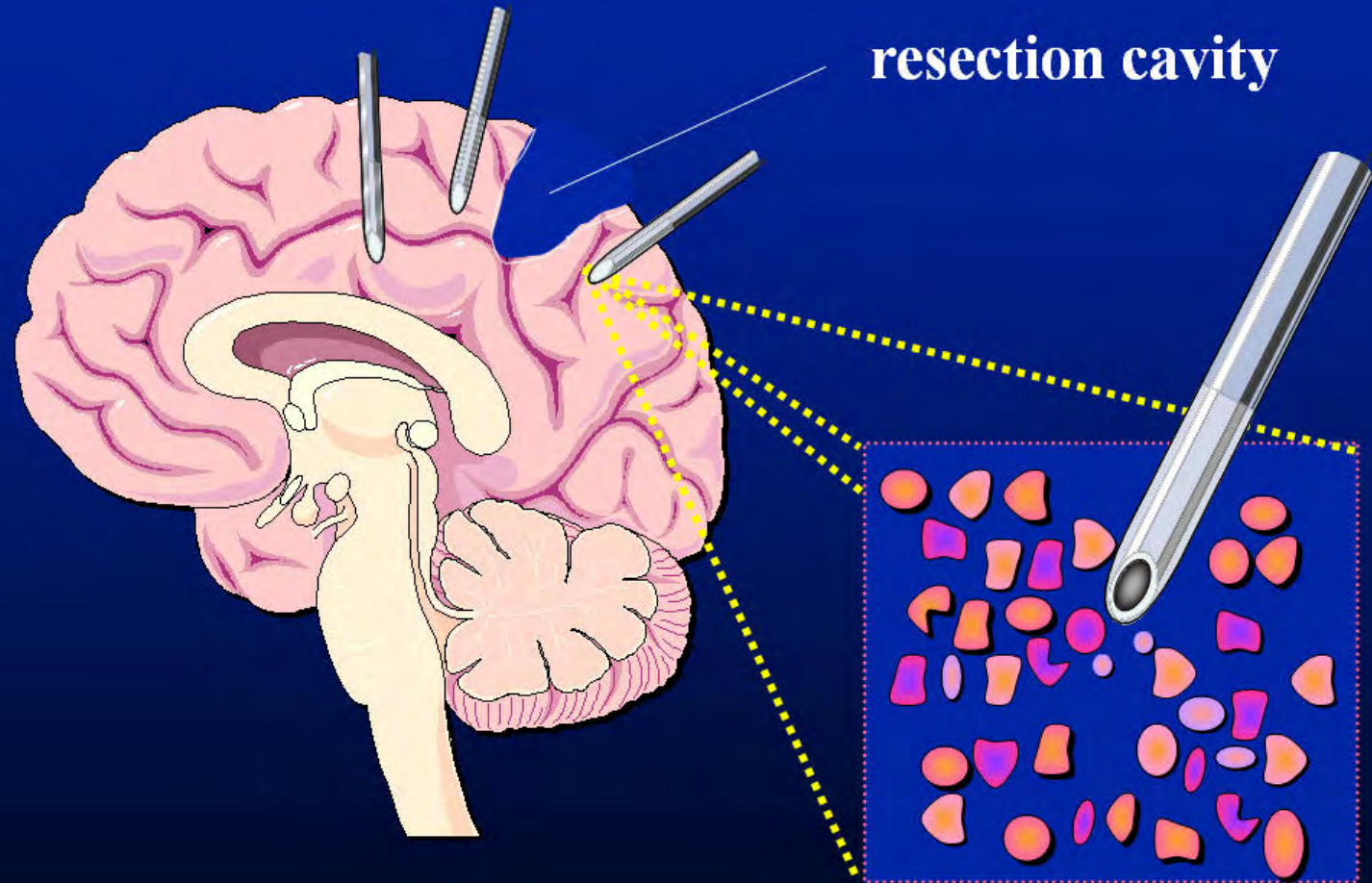
Convection enhanced delivery

Stereotactic placement of intracerebral catheter(s)

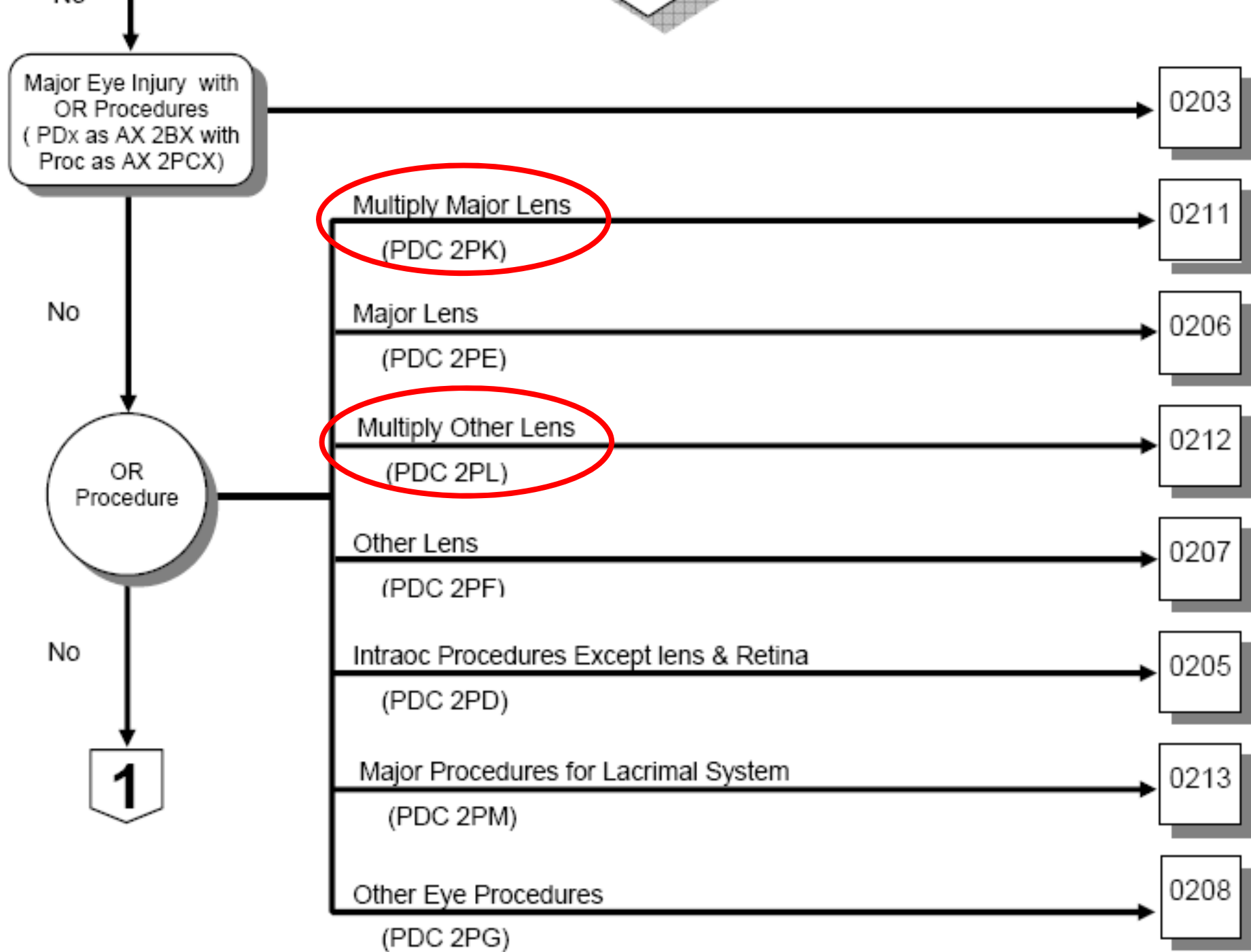
Code also infusion of medication



Convection Enhanced Delivery (CED) through Multiple Intracerebral Catheters



MDC 02



1300	2PF	Remove FB lens NOS
1301	2PF	Magnet remove FB lens
1302	2PF	Nonmagnet remove FB lens
1311	2PF	Temp-inf intrcap lens ex
1311>1	2PL	Temp-inf intrcap lens ex>1
1319	2PF	Intracapsul lens ext NEC
1319>1	2PL	Intracapsul lens ext NEC>1
132	2PF	Linear extracap lens ext
132>1	2PL	Linear extracap lens ext>1
133	2PF	Simpl aspir lens extract
133>1	2PL	Simpl aspir lens extract>1
1341	2PE	Catarac phacoemuls/aspir
1341>1	2PK	Catarac phacoemuls/aspir>1
1342	2PE	Post catarac frag/aspir
1342>1	2PK	Post catarac frag/aspir>1
1343	2PE	Cataract frag/aspir NEC
1343>1	2PK	Cataract frag/aspir NEC>1
1351	2PF	Temp-inf xtracap lens ex
1351>1	2PL	Temp-inf xtracap lens ex>1

1359	2PF	Extracap lens extrac NEC
1359>1	2PL	Extracap lens extrac NEC>1
1364	2PF	After-catar discission
1364>1	2PL	After-catar discission>1
1365	2PF	After-cataract excision
1365>1	2PL	After-cataract excision>1
1366	2PF	After catar fragmntation
1366>1	2PL	After catar fragmntation>1
1369	2PF	Cataract extraction NEC
1369>1	2PL	Cataract extraction NEC>1
1370	2PF	Insert pseudophakos NOS
1370>1	2PL	Insert pseudophakos NOS>1
1371	2PF	Insert lens at catar ext
1372	2PE	Secondary insert lens
1372>1	2PK	Secondary insert lens>1
138	2PE	Implanted lens removal
138>1	2PK	Implanted lens removal>1
139	2PF	Other operations on lens
1390	2PF	OPERATION ON LENS NEC
1391	2PE	IMPL INTRAOC TELESC PROS
139>1	2PL	Other operations on lens>1

Extension codes



New Procedures: ICD-9-CM 2006-7

Implantation of Intraocular Telescope Prosthesis

13.9 Other operations on lens

13.90 Operation on lens, not elsewhere classified

13.91 Implantation of intraocular telescope
Prosthesis

13.9 Other operations on lens

13.90 Operation on lens, Not Elsewhere Classified 

13.91 Implantation of intraocular telescope 
prosthesis

Implantable miniature telescope
Includes removal of lens, any method

*Excludes: secondary insertion of ocular
implant [\(16.61\)](#)*



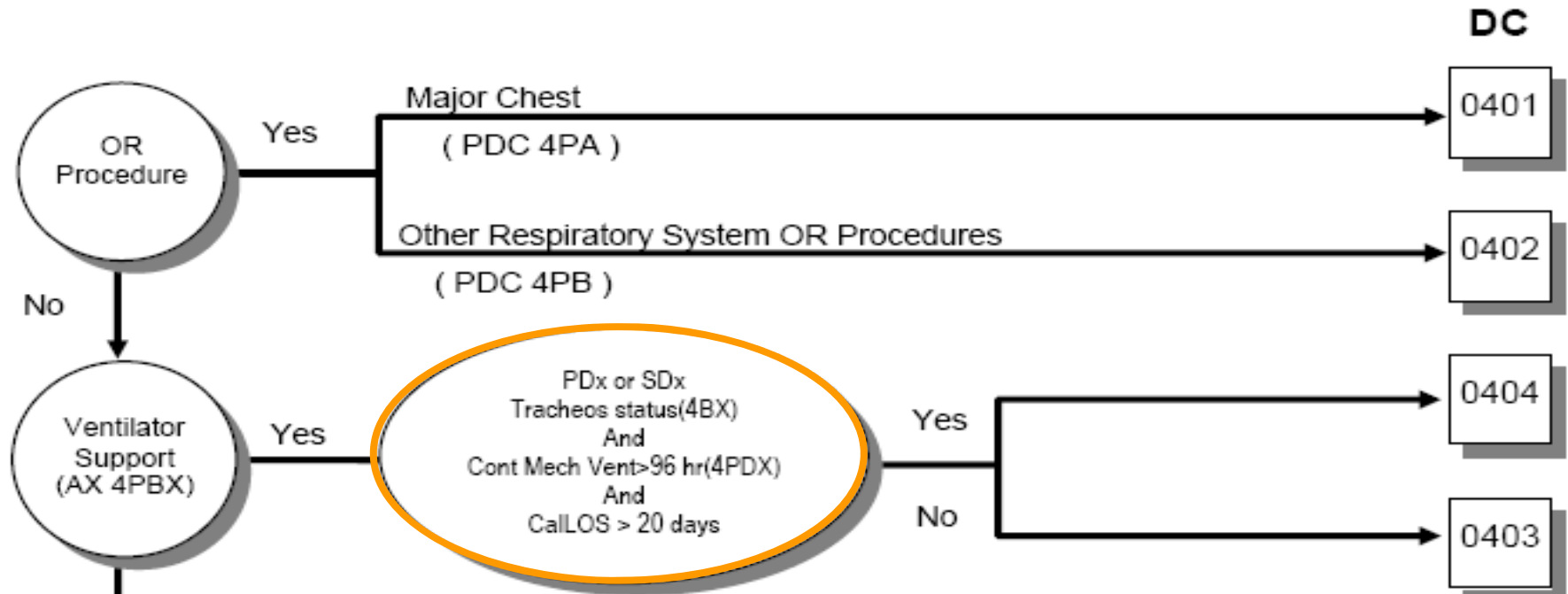
MDC 04



Major Diagnostic Category 4

Diseases and Disorders of the Respiratory System

Surgical Partitioning



- 1. **PDX or SDx:** Z430 Attention to tracheostomy **or** Z930 Tracheostomy status
- 2. **Proc:** 9672 Cont mech vent 96± hrs
- 3. **CalLOS:** ≥ 20 days



New Procedures: ICD-9-CM 2006-7

Tumor Ablation Procedures (Lung)

- 32.23 Open ablation of lung lesion or tissue
- 32.24 Percutaneous ablation of lung lesion or tissue
- 32.25 Thoracoscopic ablation of lesion or tissue
- 32.26 Other and unspecified ablation of lung lesion or tissue





New Procedures: ICD-9-CM 2006-7

Bronchial Valves

- 33.71 Endoscopic insertion or replacement of bronchial valve(s)
- 33.78 Endoscopic removal of bronchial device(s) or substances
- 33.79 Endoscopic insertion of other bronchial device or substance



MDC 05



Vascular Intervention

+ มีรหัสที่เกี่ยวข้องใน 3 บท

➤ 7. Cardiovascular system:

- ✦ 36 Operations on vessels of heart
- ✦ 39.5 Other repair of vessels
- ✦ 39.7 Endovascular repair of vessel
- ✦ 39.9 Other operations on vessels

➤ 0. Procedures and interventions, NEC:

- ✦ 00.4 Adjunct Vascular System Procedures (Version 2007)
- ✦ 00.5 Other cardiovascular procedures
- ✦ 00.6 Procedures on blood vessels

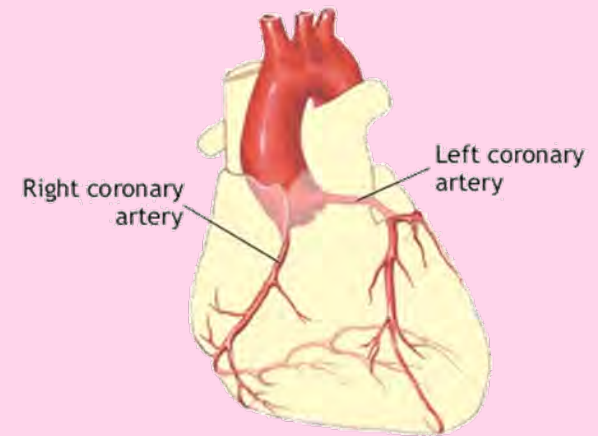
➤ 16. Miscellaneous diagnostic & therapeutic procedures

- ✦ 88.4 Arteriography using contrast material
- ✦ 88.5 Angiocardiology using contrast material

+ Coronary มักทำโดย Cardiologist, ที่อื่นๆ ทำโดย Radiologist

+ มีรหัสแยกเป็น Coronary, Peripheral, Head & neck, Carotid, Precerebral, Intracranial

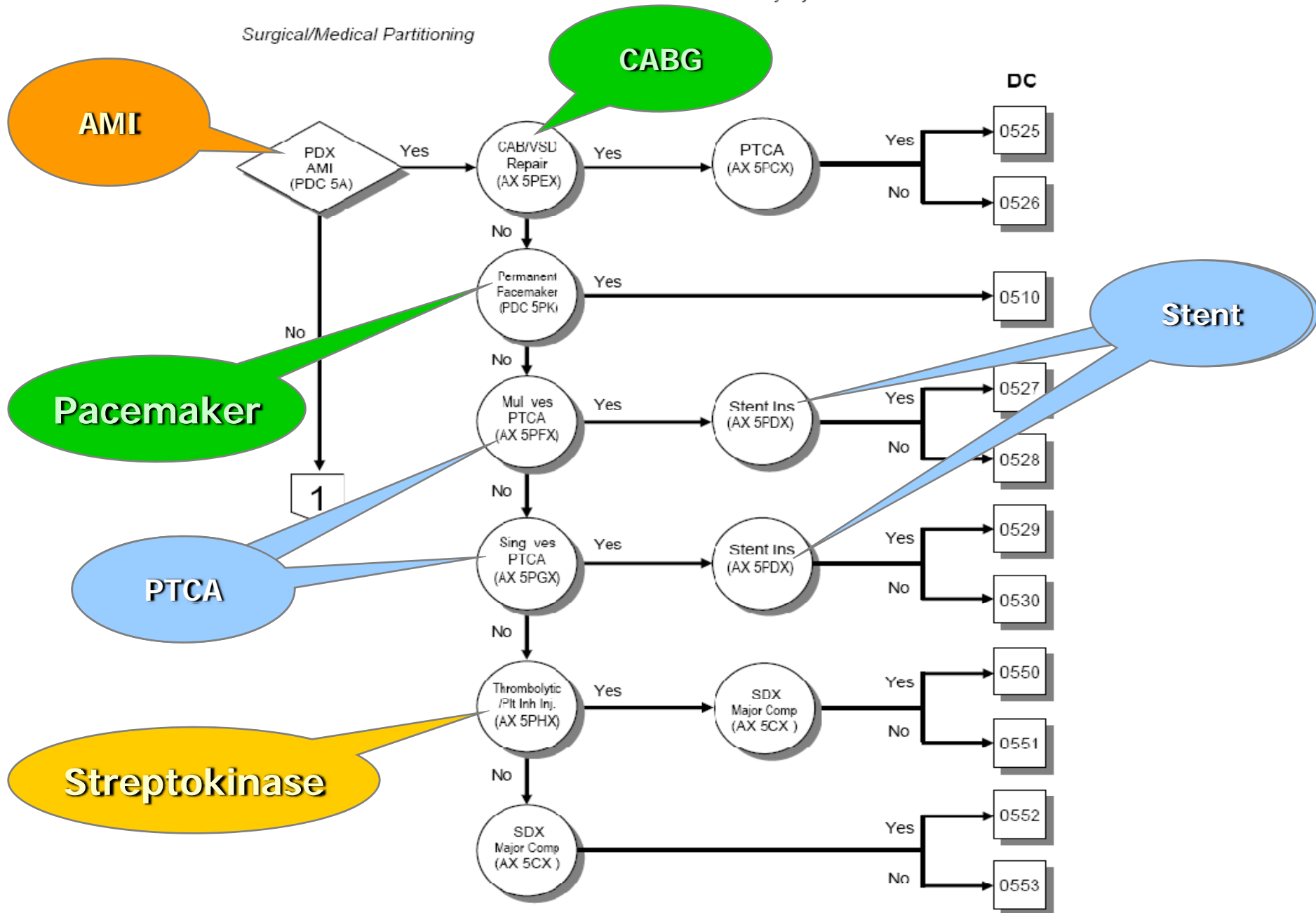
+ มีกิจกรรมสำคัญ 2 ประเภทคือ ถ่าง (Angioplasty) ± Stent กับ อุด (Embolization)

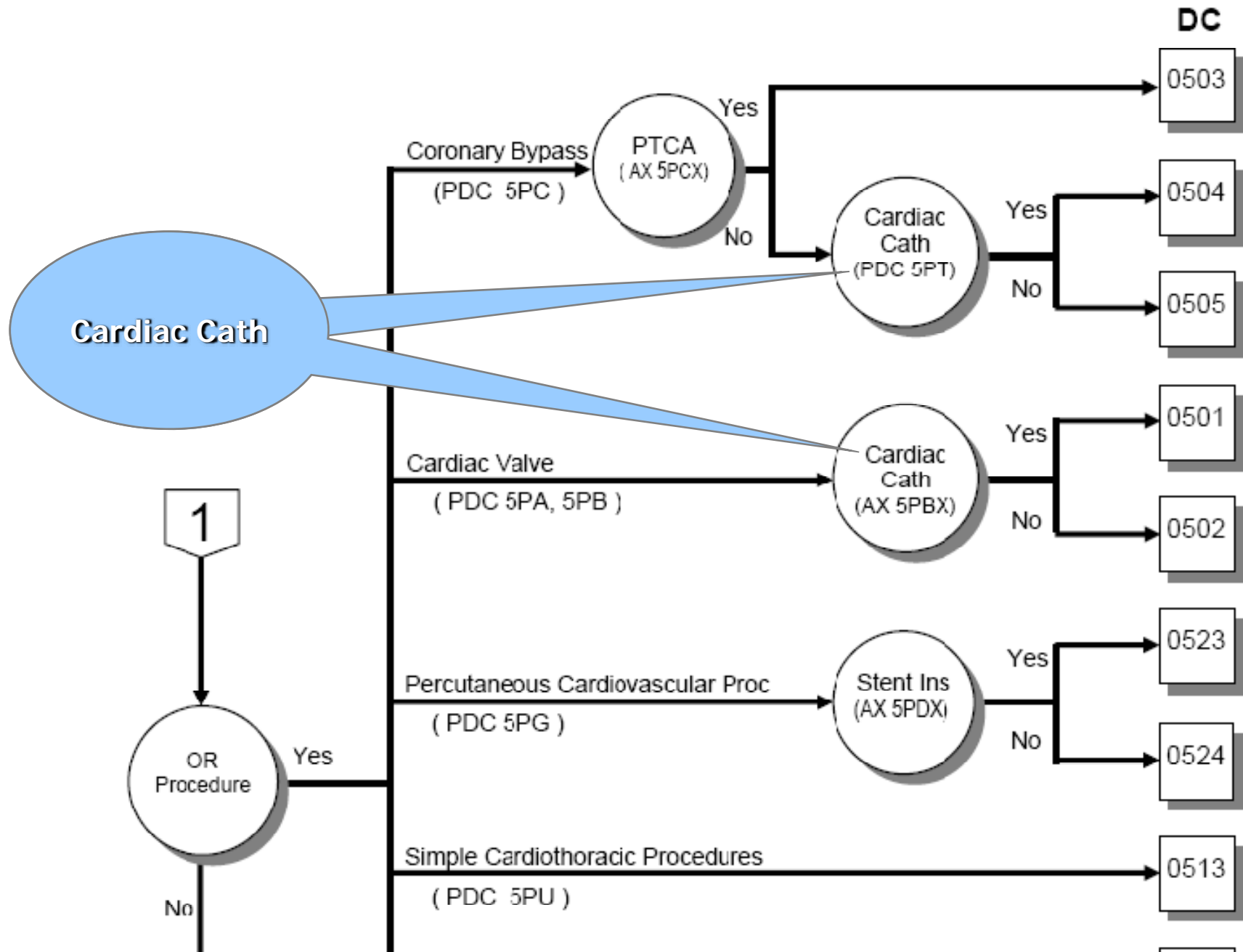


Major Diagnostic Category 5

Diseases and Disorders of the Circulatory System

Surgical/Medical Partitioning





Diagnostic procedure

- ส่วนใหญ่คือ Arteriography \Leftrightarrow Angiogram
- แยก Angiocardiography(Heart/Coronary) ต่างหากจากที่อื่น
- ถ้าเป็นส่วนหนึ่งของการรักษา ให้รหัสเฉพาะการรักษา
- เทคนิคใหม่ส่วนใหญ่อยู่ในบทที่ 0 เช่น
Intravascular ultrasound (IVUS) \rightarrow 00.21-9

88.4 Arteriography using contrast material

Includes: angiography of arteries
arterial puncture for injection of contrast material
radiography of arteries (by fluoroscopy)
retrograde arteriography

The fourth-digit subclassification identifies the site to be viewed, not the site of injection.

Excludes: arteriography using:

radioisotopes or radionuclides ([92.01-92.19](#))

ultrasound ([88.71-88.79](#))

fluorescein angiography of eye ([95.12](#))



- 88.40 Arteriography using contrast material, unspecified site
- 88.41 Arteriography of cerebral arteries
 - Angiography of:
 - basilar artery
 - carotid (internal)
 - posterior cerebral circulation
 - vertebral artery
- 88.42 Aortography
 - Arteriography of aorta and aortic arch
- 88.43 Arteriography of pulmonary arteries
- 88.44 Arteriography of other intrathoracic vessels
 - Excludes:* angiocardiology ([88.50-88.58](#))
 - arteriography of coronary arteries ([88.55-88.57](#))
- 88.45 Arteriography of renal arteries
- 88.46 Arteriography of placenta
 - Placentogram using contrast material
- 88.47 Arteriography of other intra-abdominal arteries
- 88.48 Arteriography of femoral and other lower extremity arteries
- 88.49 Arteriography of other specified sites

88.5 Angiocardiography using contrast material

Includes: arterial puncture and insertion of arterial catheter for injection of contrast material

cineangiocardiology

selective angiocardiology

Code also synchronous cardiac catheterization ([37.21-37.23](#))

Excludes: angiography of pulmonary vessels ([88.43](#), [88.62](#))

88.50 Angiocardiography, not otherwise specified

88.51 Angiocardiography of venae cavae

Inferior vena cavography

Phlebography of vena cava (inferior) (superior)

88.52 Angiocardiography of right heart structures

Angiocardiography of:

pulmonary valve

right atrium

right ventricle (outflow tract)

Excludes: that combined with left heart angiocardiology ([88.54](#))

88.53 Angiocardiography of left heart structures

Angiocardiography of:

aortic valve

left atrium

left ventricle (outflow tract)

Excludes: that combined with right heart angiocardiology ([88.54](#))

88.54 Combined right and left heart angiocardiology

88.55 Coronary arteriography using a single catheter

Coronary arteriography by Sones technique
Direct selective coronary arteriography
using a single catheter

88.56 Coronary arteriography using two catheters

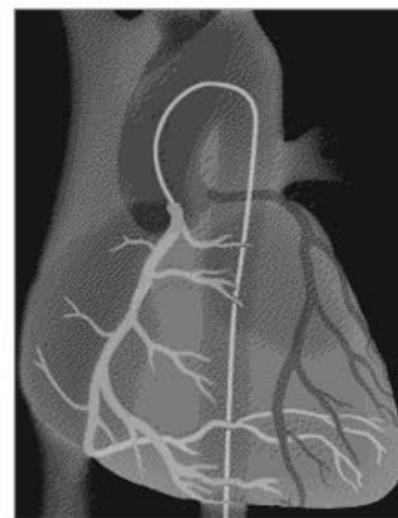
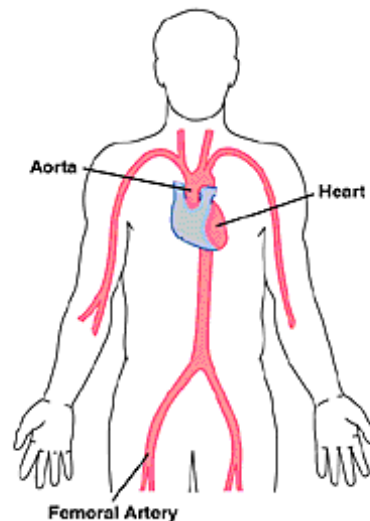
Coronary arteriography by:
Judkins technique
Ricketts and Abrams technique
Direct selective coronary arteriography using two catheters

88.57 Other and unspecified coronary arteriography

Coronary arteriography NOS

88.58 Negative-contrast cardiac roentgenography

Cardiac roentgenography with injection of carbon dioxide



37.2 Diagnostic procedures on heart and pericardium

37.21 Right heart cardiac catheterization

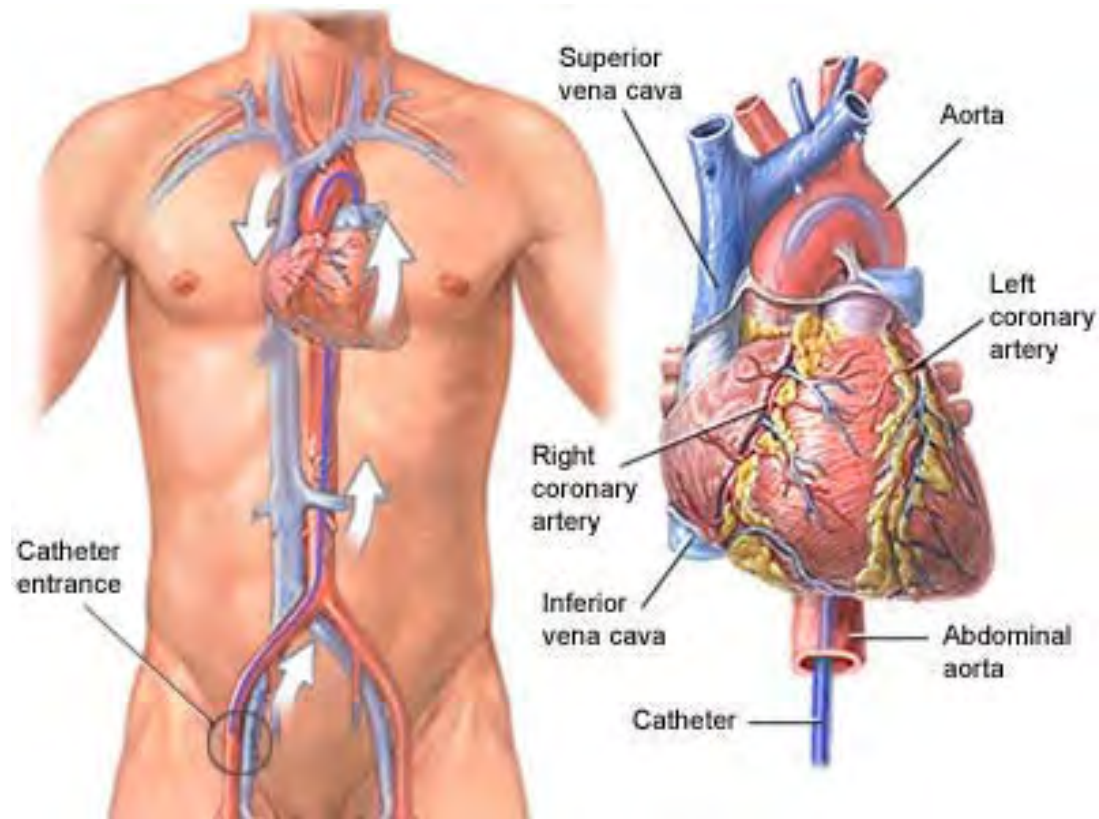
Cardiac catheterization NOS

Excludes: that with catheterization of left heart ([37.23](#))

37.22 Left heart cardiac catheterization

Excludes: that with catheterization of right heart ([37.23](#))

37.23 Combined right and left heart cardiac catheterization



Therapeutic procedure

• Angioplasty -Coronary

–Balloon (PTCA)

–Single.....36.01

–Streptokinase.....36.02

–Multiple.....36.05

–Stent

–Non-drug-eluting.....36.06

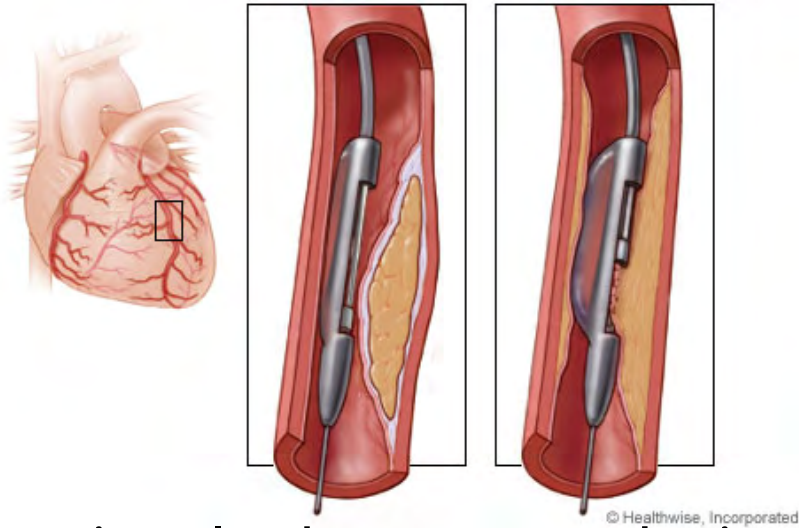
–Drug-eluting.....36.07



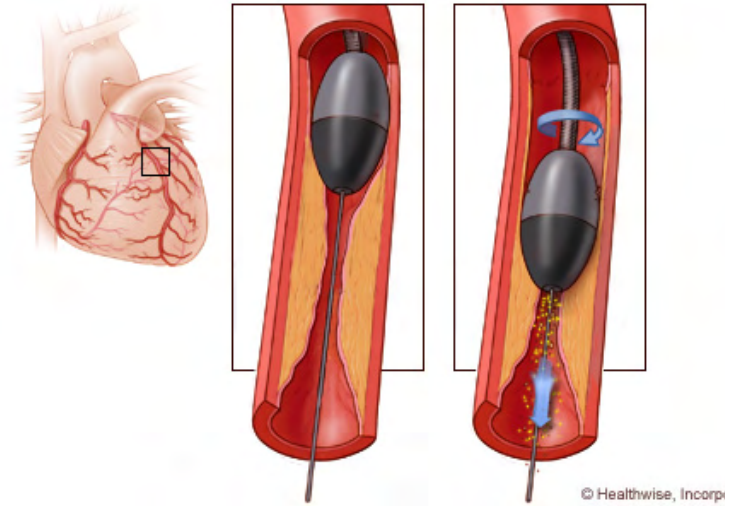
• รหัสใช้ร่วมกับ Coronary artherectomy

• เปลี่ยนวิธีให้รหัสใน ICD-9-CM 2007

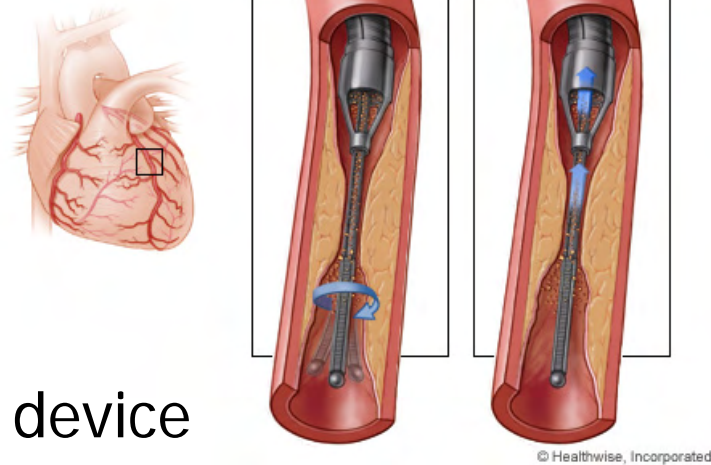
Coronary arterectomy



Directional atherectomy device



Rotational extraction device



Transluminal extraction device

36.0 Removal of coronary artery obstruction and insertion of stent(s)

36.01 Single vessel percutaneous transluminal coronary angioplasty [PTCA] or coronary atherectomy without mention of thrombolytic agent

Balloon angioplasty of coronary artery
Coronary atherectomy
Percutaneous coronary angioplasty NOS
PTCA NOS

Excludes: multiple vessel percutaneous transluminal coronary angioplasty [PTCA] or coronary atherectomy performed during the same operation ([36.05](#))

Code also any insertion of coronary stent(s) ([36.06](#))

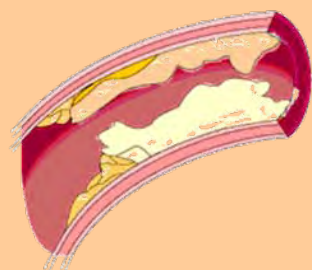
36.02 Single vessel percutaneous transluminal coronary angioplasty [PTCA] or coronary atherectomy with mention of thrombolytic agent

Balloon angioplasty of coronary artery with infusion of thrombolytic agent [streptokinase]
Coronary atherectomy

Excludes: multiple vessel percutaneous transluminal coronary angioplasty [PTCA] or coronary atherectomy performed during the same operation ([36.05](#))
single vessel PTCA or coronary atherectomy without mention of thrombolytic agent ([36.01](#))

Code also any insertion of coronary stent(s) ([36.06](#))

Single
vessel
PTCA



36.05 Multiple vessel percutaneous transluminal coronary angioplasty [PTCA] or coronary atherectomy performed during the same operation, **with or without mention of thrombolytic agent**

Balloon angioplasty of multiple coronary arteries

Coronary atherectomy

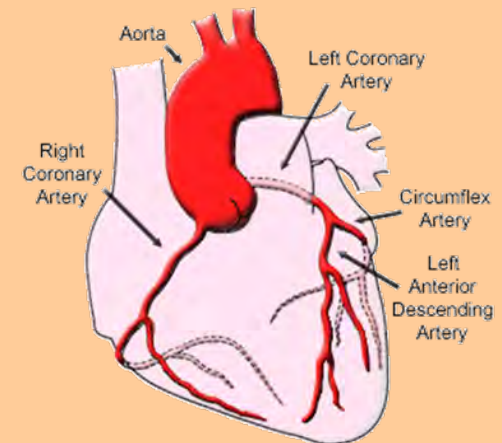
Code also any:

intracoronary artery thrombolytic infusion ([36.04](#))

insertion of coronary stent(s) ([36.06](#))

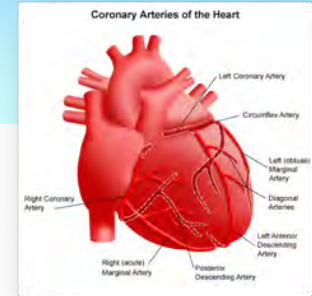
*Excludes: single vessel PTCA or coronary atherectomy without mention of thrombolytic agent ([36.01](#))
with mention of thrombolytic agent ([36.02](#))*

Multiple vessel
PTCA



2007

New Procedure Codes for Vascular intervention



Coronary angioplasty

- Delete codes 36.01, 36.02 & 36.05, replaced with
- New code 00.66 *Single vessel percutaneous transluminal coronary angioplasty (PTCA) or coronary atherectomy*
- Code also Multi-Vessel, Multi-Stent, Bifurcation code

Multi-Vessel	Multi-Stent
00.40 Procedure on a single vessel	00.45 Insertion of a single stent
00.41 Procedure on 2 vessels	00.46 Insertion of 2 stents
00.42 Procedure on 3 vessels	00.47 Insertion of 3 stents
00.43 Procedure on 4 or more vessels	00.48 Insertion of 4 or more stents

00.44 Procedure on vessel bifurcation

00.66 Percutaneous transluminal coronary angioplasty [PTCA] or coronary atherectomy

Balloon angioplasty of coronary artery

Coronary atherectomy

Percutaneous coronary angioplasty NOS

PTCA NOS

Code also any:

injection or infusion of thrombolytic agent ([99.10](#))

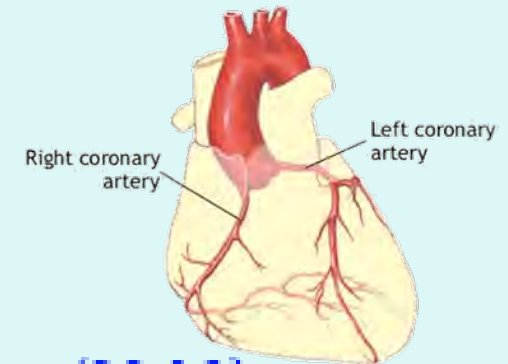
insertion of coronary artery stent(s) ([36.06- 36.07](#))

intracoronary artery thrombolytic infusion ([36.04](#))

number of vascular stents inserted ([00.45 - 00.48](#))

number of vessels treated ([00.40 - 00.43](#))

procedure on vessel bifurcation ([00.44](#))



ADAM

ใช้แทนรหัส 36.01, 36.02 & 36.05

00.4 Adjunct Vascular System Procedures

Note: These codes can apply to both coronary and peripheral vessels. These codes are to be used in conjunction with other therapeutic procedure codes to provide additional information on the number of vessels upon which a procedure was performed and/or the number of stents inserted. As appropriate, code both the number of vessels operated on ([00.40-00.43](#)), and the number of stents inserted ([00.45-00.48](#)).

Code also any:

angioplasty or atherectomy ([00.61-00.62](#), [00.66](#), [39.50](#))

endarterectomy ([38.10 - 38.18](#))

insertion of vascular stent(s) ([00.55](#), [00.63-00.65](#), [36.06 -36.07](#), [39.90](#))

other removal of coronary artery obstruction ([36.09](#))

00.40 Procedure on single vessel

Number of vessels, unspecified

Excludes: (aorto) coronary bypass ([36.10 - 36.19](#))
intravascular imaging of blood vessels ([00.21-00.29](#))

00.41 Procedure on two vessels

Excludes: (aorto) coronary bypass ([36.10 - 36.19](#))
intravascular imaging of blood vessels ([00.21-00.29](#))

00.42 Procedure on three vessels

Excludes: (aorto) coronary bypass ([36.10 - 36.19](#))
intravascular imaging of blood vessels ([00.21-00.29](#))

00.43 Procedure on four or more vessels

Excludes: (aorto) coronary bypass ([36.10 - 36.19](#))
intravascular imaging of blood vessels ([00.21-00.29](#))

00.44 Procedure on vessel bifurcation

Note: This code is to be used to identify the presence of a vessel bifurcation; it does not describe a specific bifurcation stent. Use this code only once per operative episode, irrespective of the number of bifurcations in vessels.

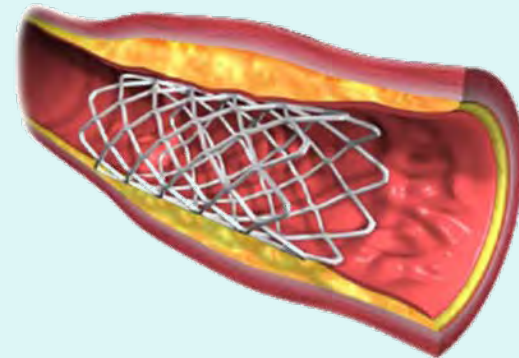
00.45 Insertion of one vascular stent

Number of stents, unspecified

00.46 Insertion of two vascular stents

00.47 Insertion of three vascular stents

00.48 Insertion of four or more vascular stents



00.6 Procedures on blood vessels [®]

00.61 Percutaneous angioplasty or atherectomy of precerebral (extracranial) vessel(s) [®]

Basilar
Carotid
Vertebral

Code also any:

injection or infusion of thrombolytic agent ([99.10](#))

percutaneous insertion of carotid artery stent(s) ([00.63](#))

percutaneous insertion of other precerebral artery stent(s) ([00.64](#))

number of vascular stents inserted ([00.45 - 00.48](#))

number of vessels treated ([00.40 - 00.43](#))

procedure on vessel bifurcation ([00.44](#))

Excludes: angioplasty or atherectomy of other non-coronary vessel(s)

([39.50](#))

removal of cerebrovascular obstruction of vessel(s) by open

approach ([38.01-38.02](#), [38.11-38.12](#), [38.31-38.32](#), [38.41-](#)

[38.42](#))

ใช้กับ Non-coronary ด้วย

Coronary Stent

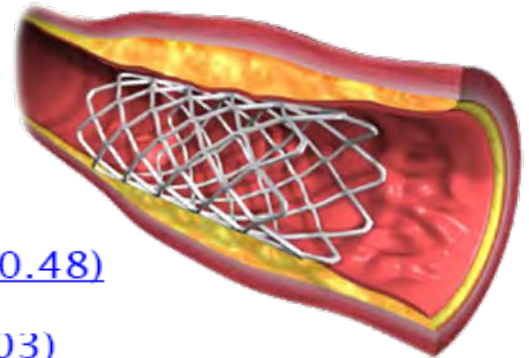
36.06 Insertion of non-drug-eluting coronary artery stent(s) ®

- Bare stent(s)
- Bonded stent(s)
- Drug-coated stent(s), i.e. heparin coated
- Endograft(s)
- Endovascular graft(s)
- Stent grafts

Code also any:

- number of vascular stents inserted ([00.45-00.48](#))
- number of vessels treated ([00.40-00.43](#))
- open chest coronary artery angioplasty ([36.03](#))
- percutaneous transluminal coronary angioplasty [PTCA] or coronary atherectomy ([00.66](#))
- procedure on vessel bifurcation ([00.44](#))

Excludes: insertion of drug-eluting coronary artery stent(s) ([36.07](#))



36.07 Insertion of drug-eluting coronary artery stent(s) ®

- Endograft(s)
- Endovascular graft(s)
- Stent graft(s)

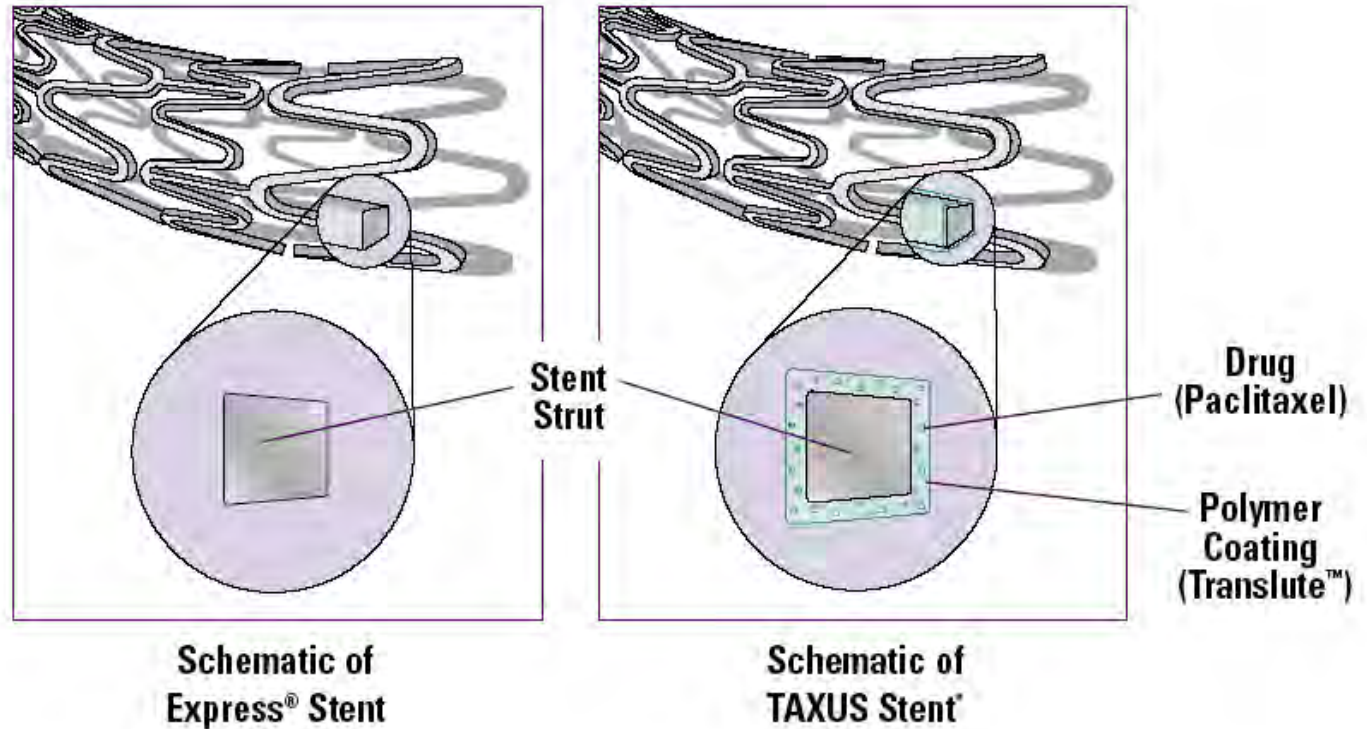
Code also any:

- number of vascular stents inserted ([00.45-00.48](#))
- number of vessels treated ([00.40-00.43](#))
- open chest coronary artery angioplasty ([36.03](#))
- percutaneous transluminal coronary angioplasty [PTCA] or coronary atherectomy ([00.66](#))
- procedure on vessel bifurcation ([00.44](#))

*Excludes: drug-coated stents, e.g., heparin coated ([36.06](#))
insertion of non-drug-eluting coronary artery stent(s) ([36.06](#))*

Drug-eluting stent

- Paclitaxel
- Sirolimus



Therapeutic procedure

• Angioplasty –Non-coronary

–Balloon (PTA)

–Precerebral.....00.61

–Intracranial.....00.62

–Other non-coronary.....39.50

–Stent

–Carotid.....00.63

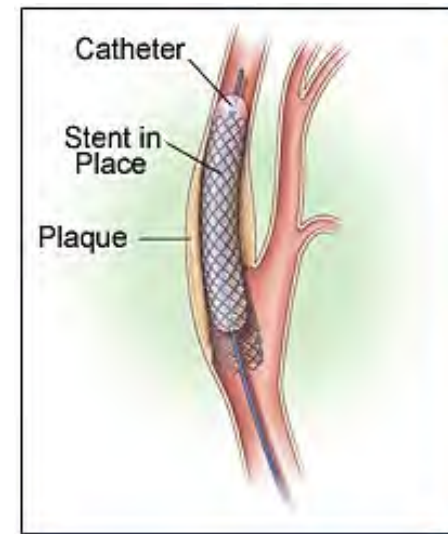
–Other precerebral.....00.64

–Intracranial.....00.65

–Other non-coronary

–Non-drug-eluting.....00.55

–Drug-eluting.....39.90



- รหัสใช้ร่วมกับ Artherectomy
- มีรหัสละเอียดขึ้นใน ICD-9-CM 2007

00.6 Procedures on blood vessels

Excludes: angioplasty or atherectomy of other non-coronary vessel(s) [\(39.50\)](#)
insertion of coronary artery stent(s) [\(36.06- 36.07\)](#)
insertion of drug-eluting peripheral vessel stent(s) [\(00.55\)](#)
insertion of non-drug-eluting peripheral vessel stent(s) [\(39.90\)](#)

00.61 Percutaneous angioplasty or atherectomy of precerebral (extracranial) vessel(s)

Basilar
Carotid
Vertebral

Code also any:

injection or infusion of thrombolytic agent [\(99.10\)](#)
percutaneous insertion of carotid artery stent(s) [\(00.63\)](#)
percutaneous insertion of other precerebral artery stent(s)
[\(00.64\)](#)

Excludes: angioplasty or atherectomy of other non-coronary vessel(s) [\(39.50\)](#)
removal of cerebrovascular obstruction of vessel(s) by open approach [\(38.01-38.02, 38.11-38.12, 38.31-38.32, 38.41-38.42\)](#)

PTA



PTA

00.62 Percutaneous angioplasty or atherectomy of intracranial vessel(s)

Code also any:

- injection or infusion of thrombolytic agent ([99.10](#))
- percutaneous insertion of intracranial stent(s) ([00.65](#))

Excludes: angioplasty or atherectomy of other non-coronary vessel(s) ([39.50](#))
removal of cerebrovascular obstruction of vessel(s) by open approach ([38.01-38.02](#), [38.11-38.12](#), [38.31-38.32](#), [38.41-38.42](#))

39.50 Angioplasty or atherectomy of other non-coronary vessel(s)

Percutaneous transluminal angioplasty (PTA) of non-coronary vessels:

- Lower extremity vessels
- Mesenteric artery
- Renal artery
- Upper extremity vessels

Code also any:

- injection or infusion of thrombolytic agent ([99.10](#))
- Insertion of non-coronary stent(s) or stent grafts(s) ([39.90](#))
- percutaneous insertion of carotid artery stent(s) ([00.63](#))

Excludes: percutaneous angioplasty or atherectomy of precerebral or cerebral vessel(s) ([00.61-00.62](#))

Stent



- 00.63 Percutaneous insertion of carotid artery stent(s)** ✦
Includes the use of any embolic protection device, distal protection device, filter device, or stent delivery system
Non-drug-eluting stent
Code also percutaneous angioplasty or atherectomy of precerebral vessel(s) [\(00.61\)](#)
- 00.64 Percutaneous insertion of other precerebral (extracranial) artery stent(s)** ✦
Includes the use of any embolic protection device, distal protection device, filter device, or stent delivery system
Basilar stent
Vertebral stent
Code also percutaneous angioplasty or atherectomy of precerebral vessel(s) [\(00.61\)](#)
- 00.65 Percutaneous insertion of intracranial vascular stent(s)** ✦
Includes the use of any embolic protection device, distal protection device, filter device, or stent delivery system
Code also percutaneous angioplasty or atherectomy of intracranial vessel(s) [\(00.62\)](#)

Stent

00.55 Insertion of drug-eluting peripheral vessel stent(s)

Endograft(s)
Endovascular graft(s)
Stent grafts

Code also any angioplasty or atherectomy of other non-coronary vessel(s) [\(39.50\)](#)

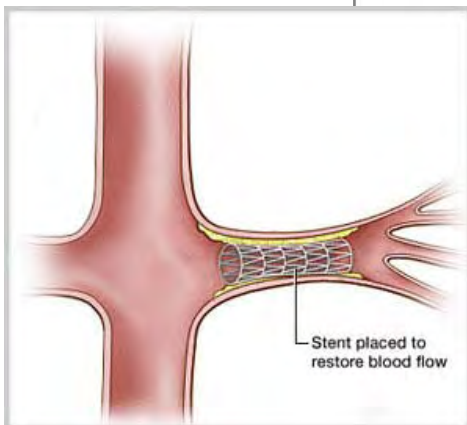
Excludes: drug-coated peripheral stents, e.g., heparin coated [\(39.90\)](#)
insertion of cerebrovascular stent(s) [\(00.63-00.65\)](#)
insertion of drug-eluting coronary artery stent [\(36.07\)](#)
insertion of non-drug-eluting stent(s):
coronary artery [\(36.06\)](#)
peripheral vessel [\(39.90\)](#)
that for aneurysm repair [\(39.71 - 39.79\)](#)

39.90 Insertion of non-drug-eluting peripheral vessel stent(s)

Bare stent(s)
Bonded stent(s)
Drug-coated stent(s), i.e., heparin coated
Endograft(s)
Endovascular graft(s)
Endovascular recanalization techniques
Stent graft(s)

Code also any non-coronary angioplasty or atherectomy [\(39.50\)](#)

Excludes: insertion of drug-eluting peripheral vessel stent(s) [\(00.55\)](#)
percutaneous insertion of carotid artery stent(s) [\(00.63\)](#)
percutaneous insertion of intracranial stent(s) [\(00.65\)](#)
percutaneous insertion of other precerebral artery stent(s) [\(00.64\)](#)
that for aneurysm repair [\(39.71 - 39.79\)](#)



Therapeutic procedure

• Endovascular repair or Occlusion

- รวม (Other) Repair และ Occlusion
- แยกเป็น Head & neck และ Other
- ไม่รวม รหัสเฉพาะอื่นๆ ถ้ามี

39.7 Endovascular repair of vessel

Endoluminal repair

Excludes: angioplasty or atherectomy of other non-coronary vessel(s) [\(39.50\)](#)

insertion of non-drug-eluting peripheral vessel stent(s) [\(39.90\)](#)

other repair of aneurysm [\(39.52\)](#)

percutaneous insertion of carotid artery stent(s) [\(00.63\)](#)

percutaneous insertion of intracranial stent(s) [\(00.65\)](#)

percutaneous insertion of other precerebral artery stent(s) [\(00.64\)](#)

resection of abdominal aorta with replacement [\(38.44\)](#)

resection of lower limb arteries with replacement [\(38.48\)](#)

resection of thoracic aorta with replacement [\(38.45\)](#)

resection of upper limb vessels with replacement [\(38.43\)](#)

เพิ่มรหัส 39.74 Endovascular removal of obstruction from head and neck vessel(s) ใน ICD-9-CM 2007

39.72 Endovascular repair or occlusion of head and neck vessels 

Coil embolization or occlusion

Endograft(s)

Endovascular graft(s)

Liquid tissue adhesive (glue) embolization or occlusion

Other implant or substance for repair, embolization or occlusion

That for repair of aneurysm, arteriovenous malformation [AVM] or fistula



39.79 Other endovascular repair (of aneurysm) of other vessels ®

Coil embolization or occlusion

Endograft(s)

Endovascular graft(s)

Liquid tissue adhesive (glue) embolization or occlusion

Other implant or substance for repair, embolization or occlusion

Excludes: endovascular repair or occlusion of head and neck vessels [\(39.72\)](#)

insertion of drug-eluting peripheral vessel stent(s) [\(00.55\)](#)

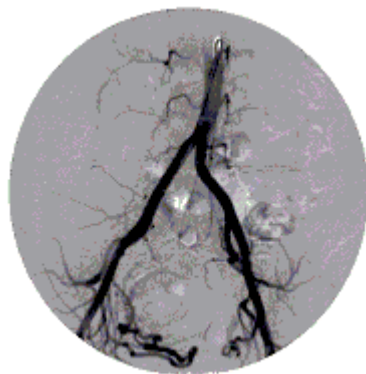
insertion of non-drug-eluting peripheral vessel (s) (for other than aneurysm repair) [\(39.90\)](#)

non-endovascular repair of arteriovenous fistula [\(39.53\)](#)

other surgical occlusion of vessels -see category [38.8](#)

percutaneous transcatheter infusion [\(99.29\)](#)

transcatheter embolization for gastric or duodenal bleeding [\(44.44\)](#)



39.73 Endovascular implantation of graft in thoracic aorta

Endograft(s)

Endovascular graft(s)

Endovascular repair of defect of thoracic aorta with graft(s) or device(s)

Stent graft(s) or device(s)

That for repair of aneurysm, dissection, or injury

Excludes: fenestration of dissecting aneurysm of thoracic aorta [\(39.54\)](#)

39.74 Endovascular removal of obstruction from head and neck vessel(s)

Endovascular embolectomy

Endovascular thrombectomy of pre-cerebral and cerebral vessels

Mechanical embolectomy or thrombectomy

Code also: any injection or infusion of thrombolytic agent [\(99.10\)](#)

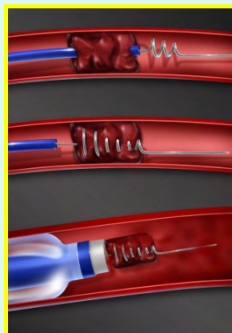
number of vessels treated [\(00.40-00.43\)](#)

procedure on vessel bifurcation [\(00.44\)](#)

Excludes: endarterectomy of intracranial vessels and other vessels of head and neck [\(38.11 - 38.12\)](#)

occlusive endovascular repair of head or neck vessels [\(39.72\)](#)

open embolectomy or thrombectomy [\(38.01-38.02\)](#)



99.1 Injection or infusion of therapeutic or prophylactic substance

Includes: injection or infusion given:

hypodermically acting locally or systemically
intramuscularly acting locally or systemically
intravenously acting locally or systemically

99.10 Injection or infusion of thrombolytic agent ®

Alteplase

Anistreplase

Retepase

Streptokinase

Tenecteplase

Tissue plasminogen activator (TPA)

Urokinase

Excludes: aspirin - omit code

GP IIB/IIIa platelet inhibitor (99.20)

heparin (99.19)

warfarin - omit code

99.20 Injection or infusion of platelet inhibitor

Glycoprotein IIB/IIIa inhibitor

GP IIB/IIIa inhibitor

GP IIB-IIIa inhibitor

Excludes: infusion of heparin (99.19)

injection or infusion of thrombolytic agent (99.10)





New Procedures: ICD-9-CM 2006-7

Intracardiac Hemodynamic Monitoring

00.56 Insertion or replacement of implantable pressure sensor (lead) for intracardiac hemodynamic monitoring

00.57 Implantation or replacement of subcutaneous device for intracardiac hemodynamic monitoring

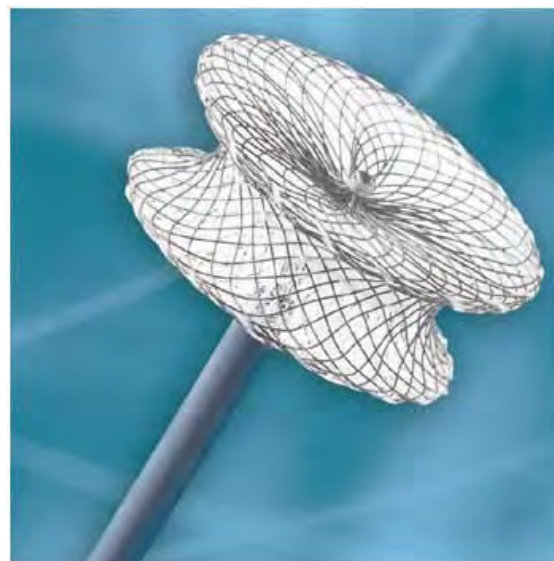
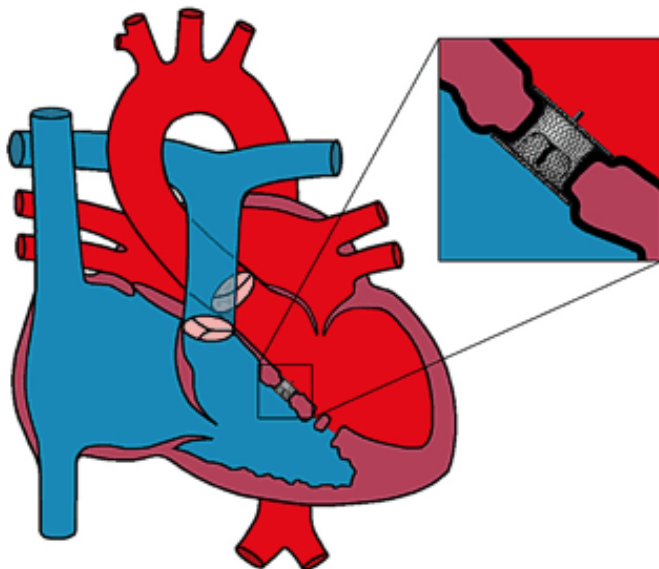




New Procedures: ICD-9-CM 2006-7

Repair of ventricular septal defect

35.55 Repair of ventricular septal defect with prosthesis, closed technique



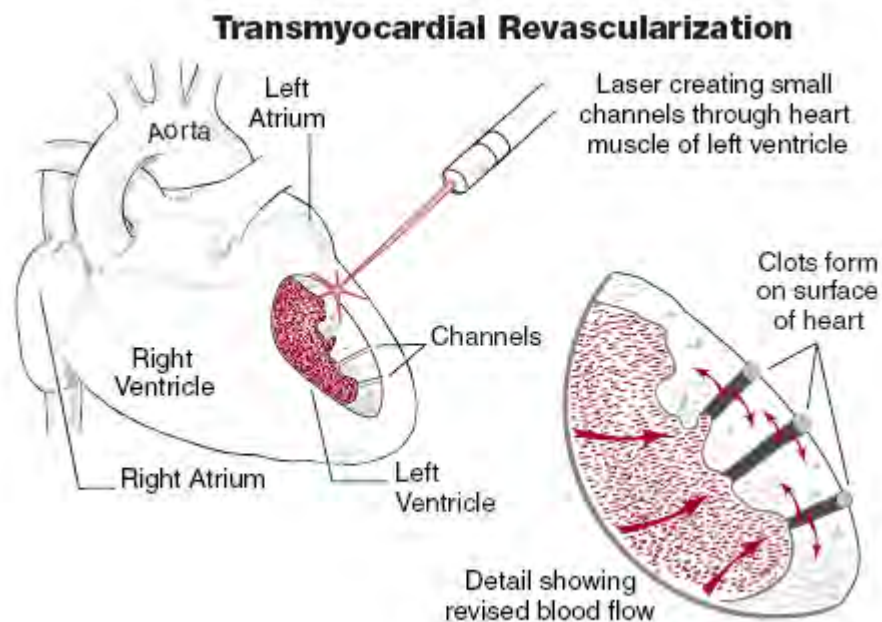


New Procedures: ICD-9-CM 2006-7

Transmyocardial Revascularization

36.33 Endoscopic transmyocardial revascularization

36.34 Percutaneous transmyocardial revascularization

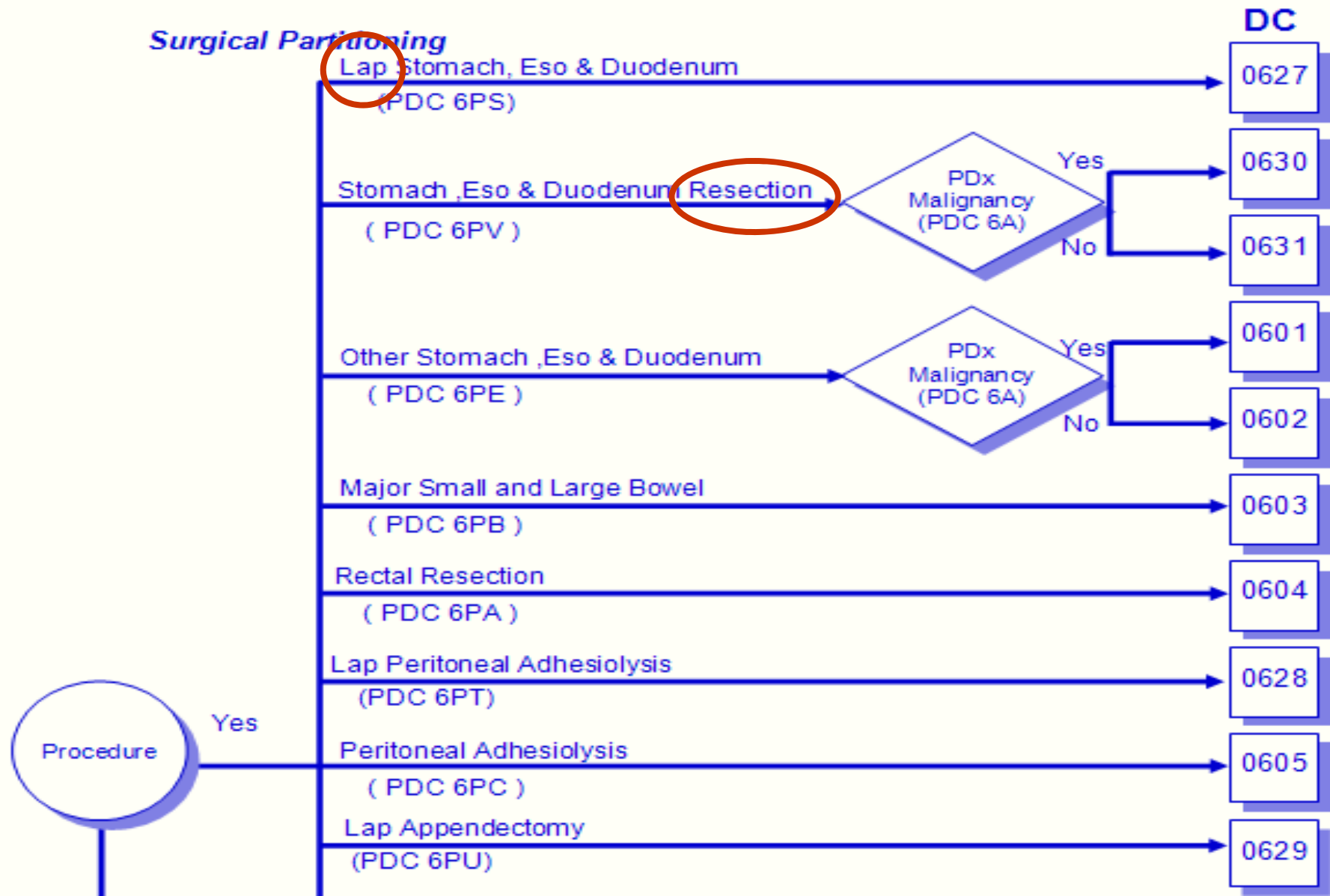


MDC 06

Major Diagnostic Category 6

Diseases and Disorders of the Digestive System

Surgical Partitioning



MDC 07

DC

Pancreas, Liver Resection and Shunt Procedures

(PDC 7PA)

0701

Pancreas and Liver Procedure **Except Resection**

(PDC 7PG)

0711

Biliary Tract Procedure

(PDC 7PB)

PDx
Malignancy
(PDC 7B)

Yes

No

0702

0703

OR
Procedure

Yes

**Laparoscopic
Cholecystectomy**

(PDC 7PF)

CDE
Proc
(AX 7PBX)

Yes

No

0709

0710

No

Cholecystectomy

(PDC 7PC)

CDE
Proc
(AX 7PBX)

Yes

No

0704

0705



New Procedures: ICD-9-CM 2006-7

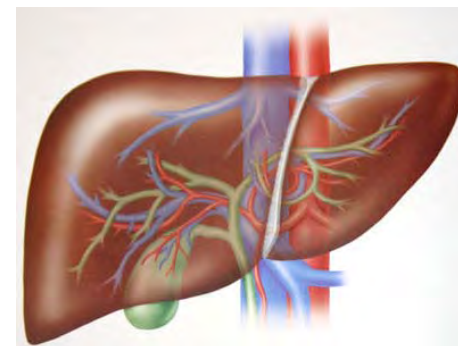
Tumor Ablation Procedures (Liver)

50.23 Open ablation of liver lesion or tissue

50.24 Percutaneous ablation of liver lesion or tissue

50.25 Laparoscopic ablation of liver lesion or tissue

50.26 Other and unspecified ablation of liver lesion or tissue



MDC 08

Major Diagnostic Category 8

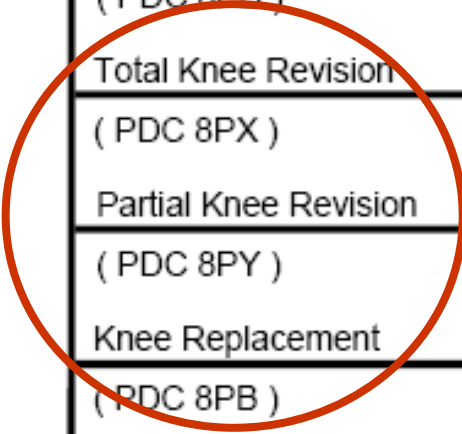
Diseases and Disorders of the Musculoskeletal System and Connective Tissue

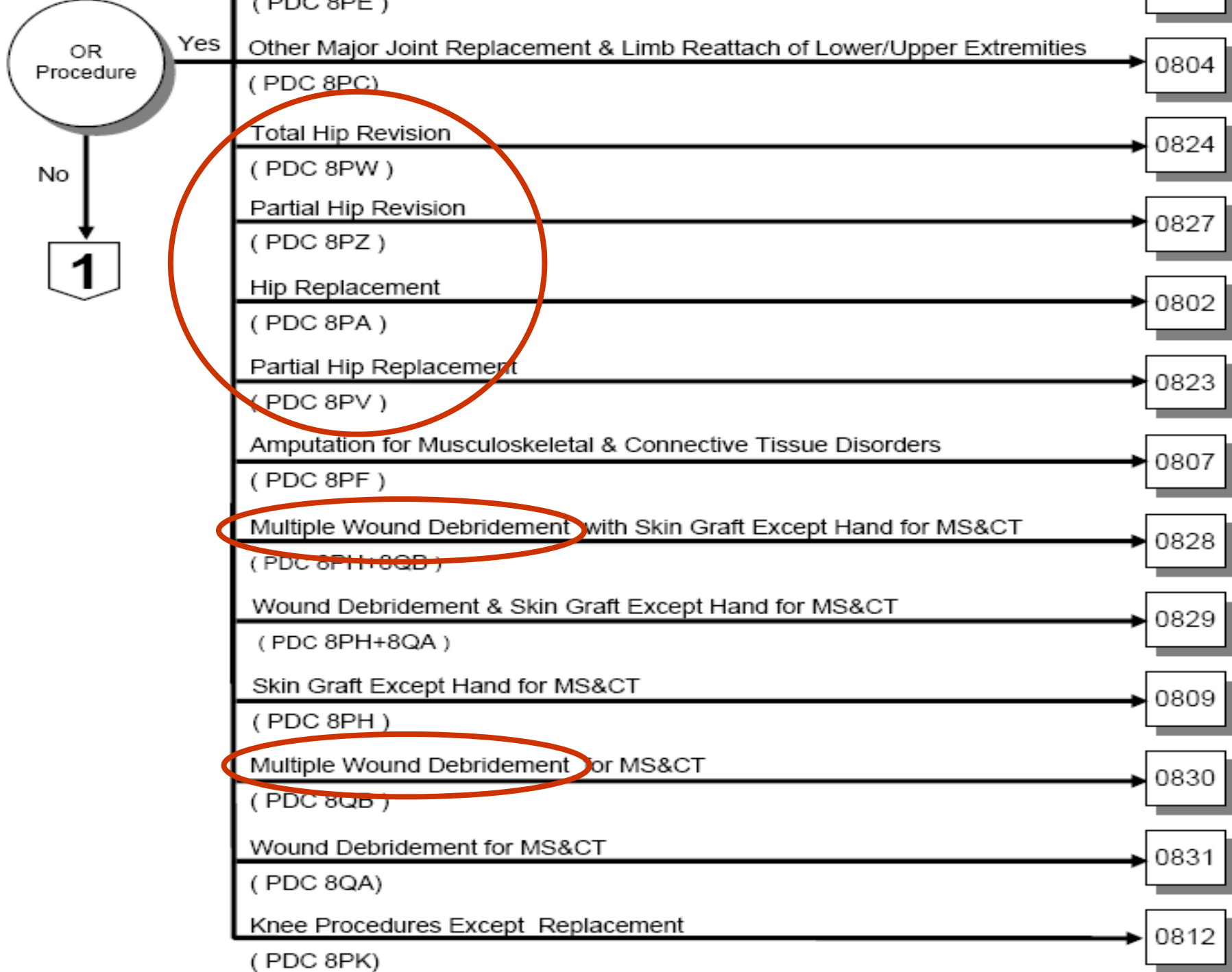
Surgical Partitioning

DC

Need
Extension code
or
Code combination

	Bilateral or Multiple Major Joint of Lower Extremity (PDC 8QD or AX 8PCX+8PDX or AX 8PCX+8PEX or AX PDX+8PEX or AX 8PCX+8PCX or AX 8PDX+8PDX)	0801
	Spinal Fusion (PDC 8PD)	0805
	Total Knee Revision (PDC 8PX)	0825
	Partial Knee Revision (PDC 8PY)	0826
	Knee Replacement (PDC 8PB)	0803
	Back & Neck Procedure Except Spinal Fusion (PDC 8PE)	0806
OR Procedure	Yes Other Major Joint Replacement & Limb Reattach of Lower/Upper Extremities (PDC 8PC)	0804
No	Total Hip Revision (PDC 8PW)	0824





Replacement --Cont.

hip (partial) (with fixation device) (with
prosthesis) (with traction) [81.52](#)

acetabulum [81.52](#)

revision [81.53](#)

femoral head [81.52](#)

revision [81.53](#)

total [81.51](#)

revision [81.53](#)



81.5 Joint replacement of lower extremity

Includes: arthroplasty of lower extremity with:
external traction or fixation
graft of bone (chips) or cartilage
internal fixation device or prosthesis
removal of cement spacer



81.51 Total hip replacement ®

Replacement of both femoral head and acetabulum by prosthesis
Total reconstruction of hip

Code also any type of bearing surface, if known [\(00.74-00.76\)](#)

81.52 Partial hip replacement ®

Bipolar endoprosthesis

Code also any type of bearing surface, if known [\(00.74-00.76\)](#)

81.53 Revision of hip replacement, not otherwise specified ®

Revision of hip replacement, not specified as to component(s)
replaced, (acetabular, femoral or both)

Code also any:

removal of (cement)(joint) spacer [\(84.57\)](#)

type of bearing surface, if known [\(00.74-00.76\)](#)

Excludes: *revision of hip replacement, components specified*
[\(00.70-00.73\)](#)

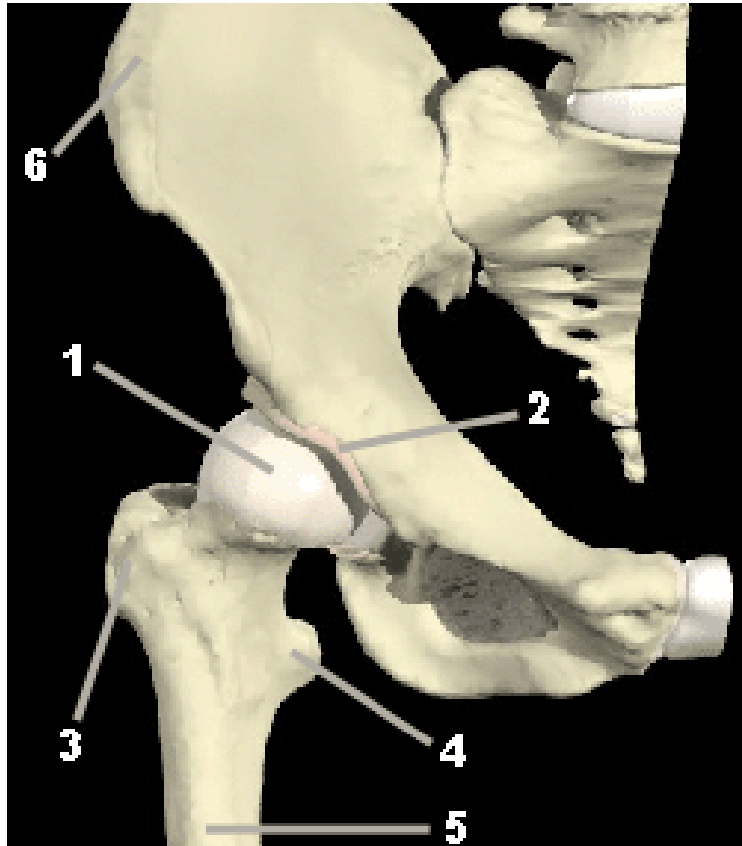


New Procedures: ICD-9-CM 2006-7

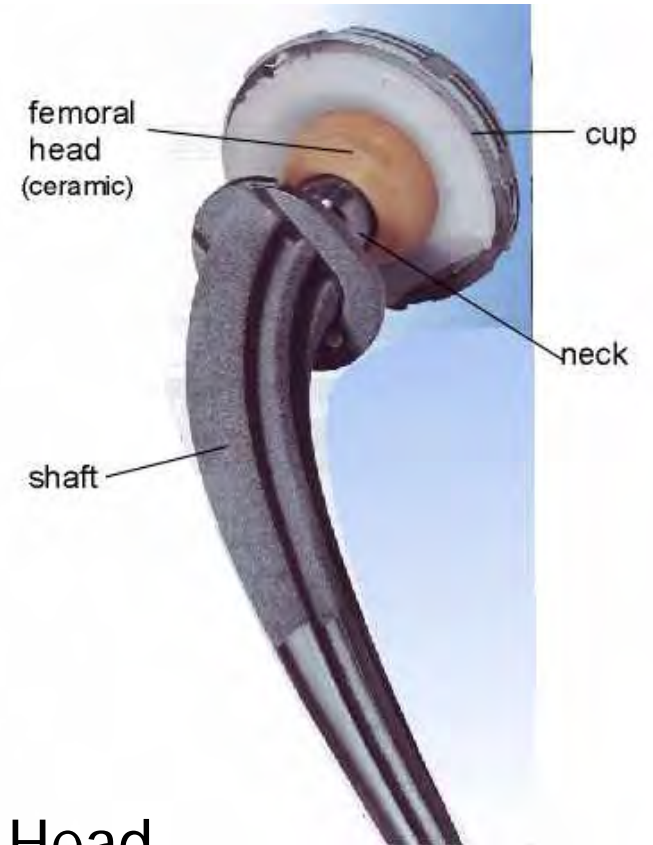
Hip Replacement Procedure

- 00.70 Revision of hip replacement, both acetabular & femoral components
- 00.71 Revision of hip replacement, acetabular component
- 00.72 Revision of hip replacement, femoral component
- 00.73 Revision of hip replacement, acetabular liner &/or femoral head only





1. Femoral Head
2. Acetabulum Lining
3. Greater Trochanter
4. Lesser Trochanter
5. Femur Bone
6. Iliac Crest





New Procedures: ICD-9-CM 2006-7

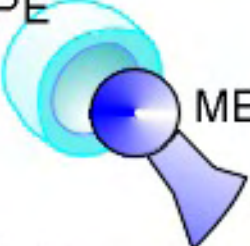



Hip Replacement Procedure (Cont.)

00.74 Hip replacement bearing surface,
metal on polyethylene

00.75 Hip replacement bearing surface,
metal-on-metal

00.76 Hip replacement bearing surface,
ceramic-on-ceramic

00.77 Hip replacement bearing surface,
ceramic-on polyethylene

Material for cup	WEAR VOLUME cu mm / year
UHMWPE 	56
cross-linked UHMWPE 	2.8
METAL 	0.9
CERAMIC 	0.004

Data: Heisel 2003



New Procedures: ICD-9-CM 2006-7

Hip Replacement Procedure (Cont.)

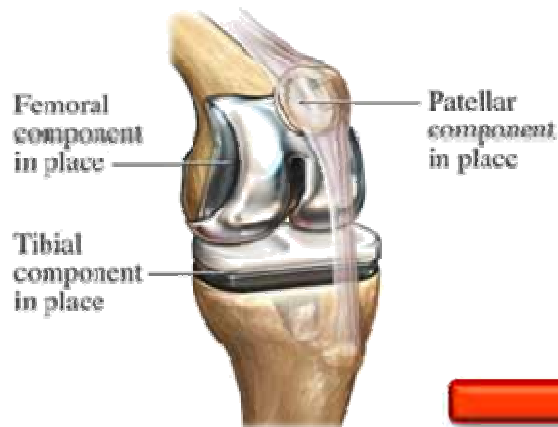
00.85 Resurfacing hip, total, acetabulum and femoral head

00.86 Resurfacing hip, partial, femoral head

00.87 Resurfacing hip, partial, acetabulum



Replacement ---Cont.



knee (bicompartamental) (hemijoint)
(partial) (total) (tricompartamental)
(unicompartamental) [81.54](#)
revision [81.55](#)

81.54 Total knee replacement
Bicompartamental
Tricompartamental
Unicompartamental (hemijoint)

81.55 Revision of knee replacement, not otherwise specified ®
Code also any removal of (cement) spacer [\(84.57\)](#)
*Excludes: arthrodesis of knee [\(81.22\)](#)
revision of knee replacement, components specified
[\(00.80-00.84\)](#)*



New Procedures: ICD-9-CM 2006-7

Knee Replacement Procedure

00.80 Revision of knee replacement, total
(all components)

00.81 Revision of knee replacement,
tibial component

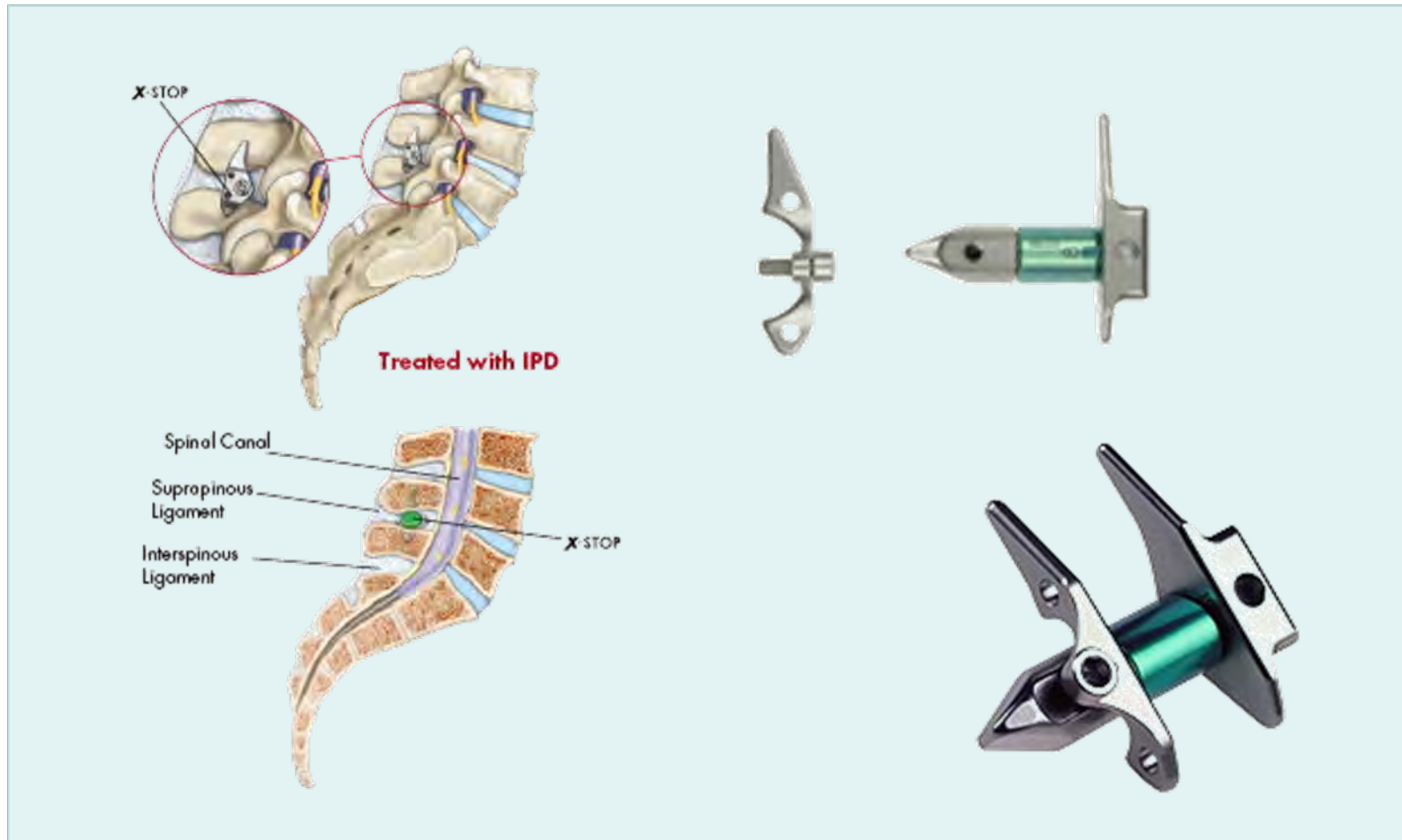
00.82 Revision of knee replacement,
femoral component

00.83 Revision of knee replacement,
patellar component

00.84 Revision of total knee replacement,
tibial insert (liner)



84.58 Implantation of interspinous process decompression device





New Procedures: ICD-9-CM 2006-7

Adjunct codes for external fixator devices

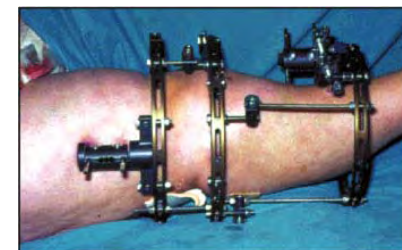
84.71 Application of external fixator device, monoplanar system



84.72 Application of external fixator device, ring system



84.73 Application of hybrid external fixator device



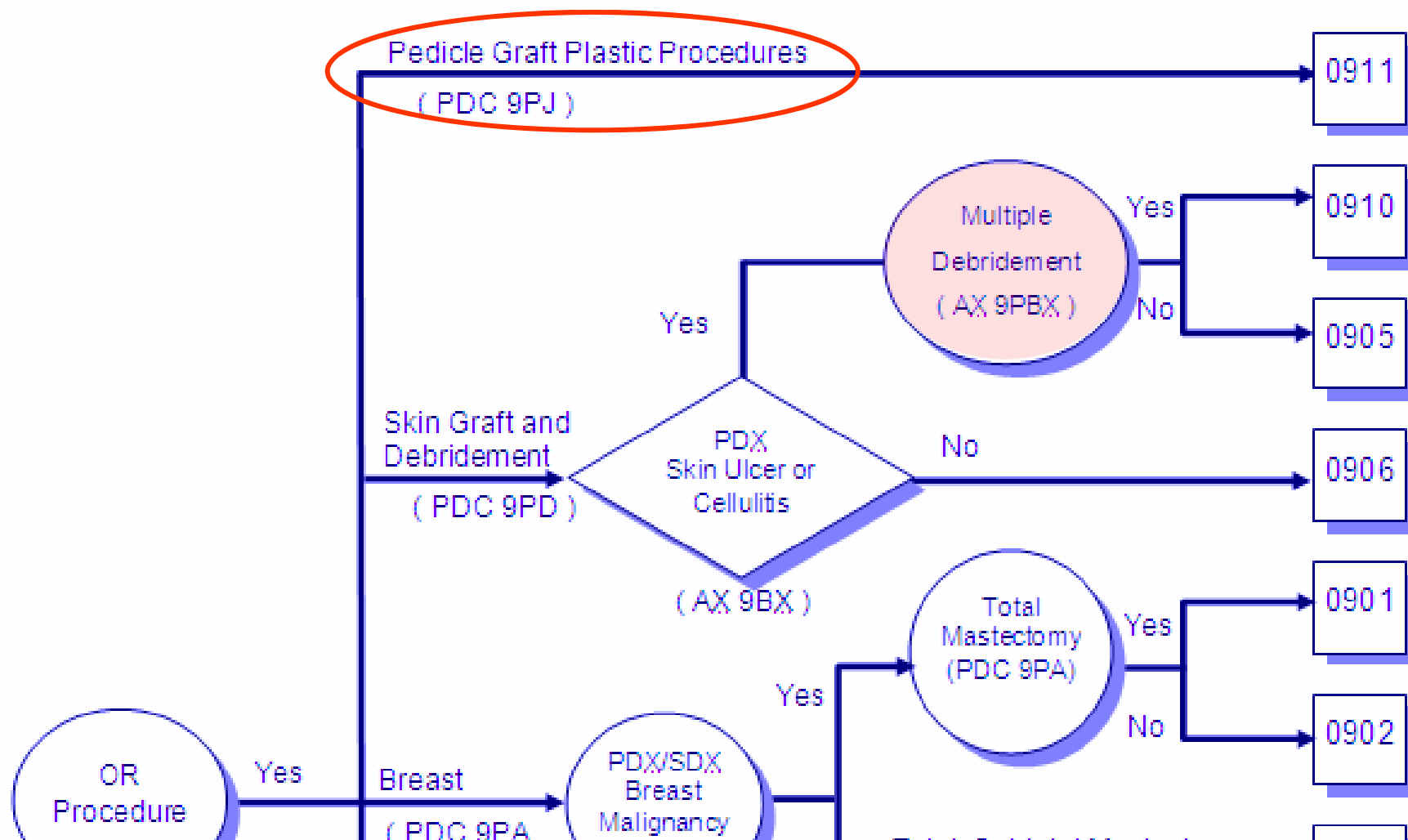
MDC 09

Major Diagnostic Category 9

Diseases and Disorders of the Skin, Subcutaneous Tissue and Breast

Surgical Partitioning

DC



DC 0911 Pedicle graft plastic procedures

- 8670 Pedicle graft/flap NOS
- 8671 Cut & prep pedicle graft
- 8672 Pedicle graft advancement
- 8673 Attach pedicle to hand
- 8674 Attach pedicle graft NEC
- 8675 Revision of pedicle graft
- 8693 Insert tissue expander

AX ASSIGNMENT OF ICD-9-CM CODES

AX 9PBX Multiple excisional wound debridement

8622>1 Exc wound debridement>1

MDC 11



New Procedures: ICD-9-CM 2006-7

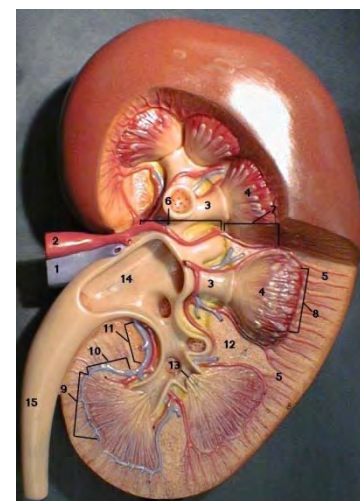
Tumor Ablation Procedures (Kidney)

55.32 Open ablation of renal lesion or tissue

55.33 Percutaneous ablation of renal lesion or tissue

55.34 Laparoscopic ablation of renal lesion or tissue

55.35 Other and unspecified ablation
of renal lesion or tissue



MDC 13

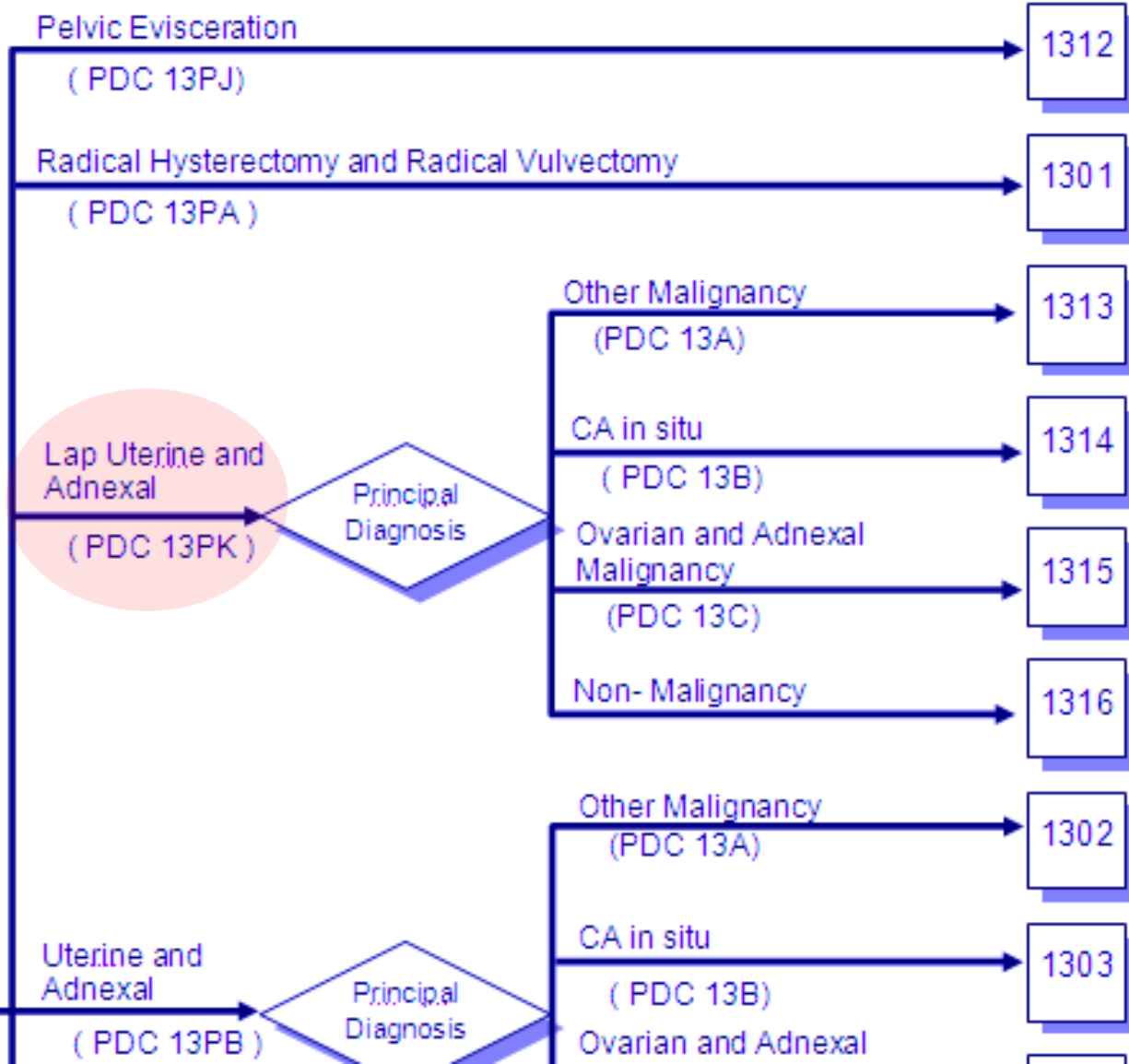
Major Diagnostic Category 13

Diseases and Disorders of the Female Reproductive System

I

Surgical Partitioning

DC





New Procedures: ICD-9-CM 2006-7

Hysterectomy

- 68.41 Laparoscopic total abdominal hysterectomy
- 68.49 Other and unspecified total abdominal hysterectomy
- 68.61 Laparoscopic radical abdominal hysterectomy
- 68.69 Other and unspecified radical abdominal hysterectomy
- 68.71 Laparoscopic radical vaginal hysterectomy
- 68.79 Other and unspecified radical vaginal hysterectomy



MDC 14

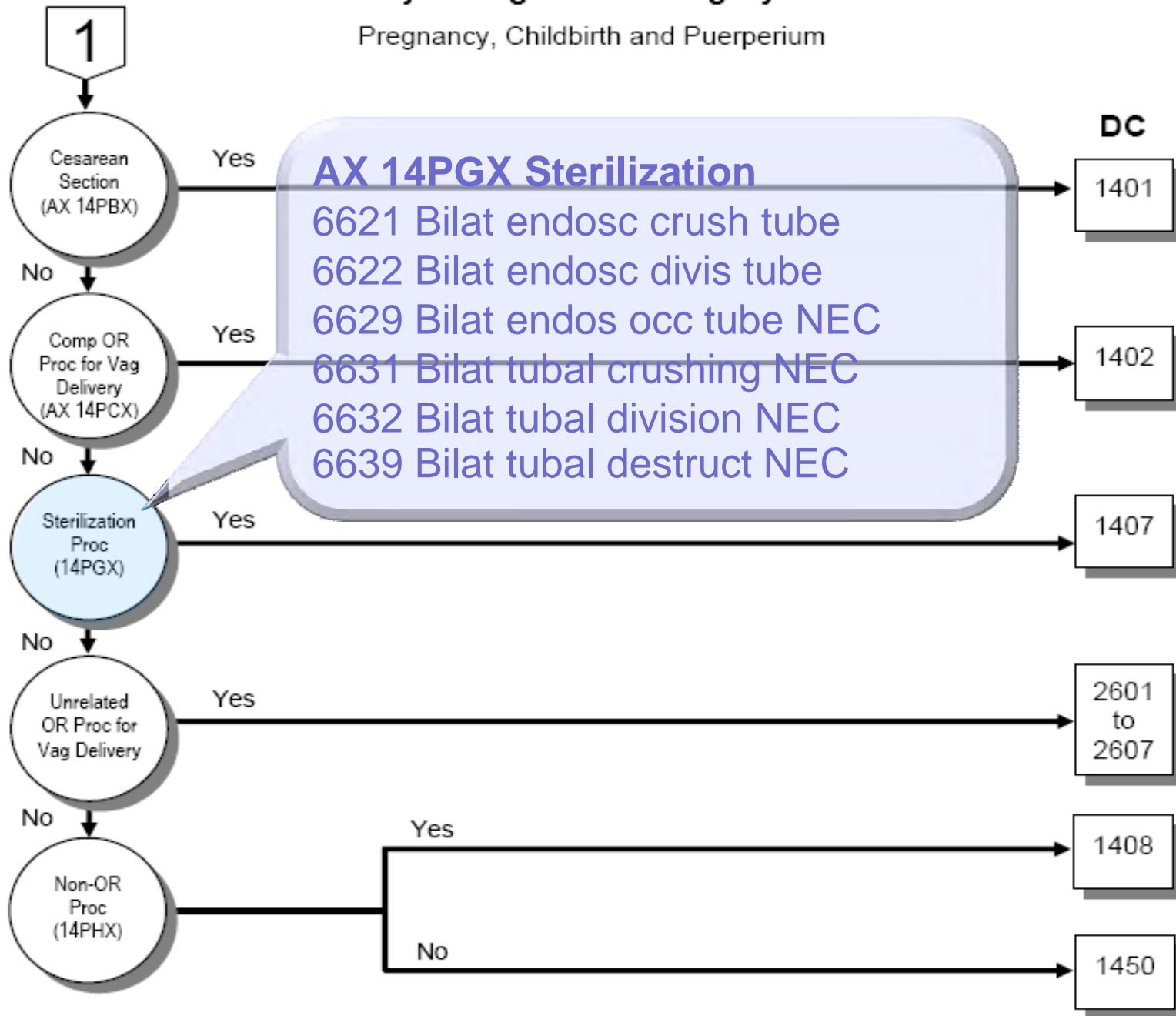
Major Diagnostic Category 14

Pregnancy, Childbirth and Puerperium

DC

AX 14PGX Sterilization

- 6621 Bilat endosc crush tube
- 6622 Bilat endosc divis tube
- 6629 Bilat endos occ tube NEC
- 6631 Bilat tubal crushing NEC
- 6632 Bilat tubal division NEC
- 6639 Bilat tubal destruct NEC



MDC 24

Major Diagnostic Category 24

Multiple Significant Trauma

MDC Definition and Body Site Categories

Assignment to MDC 24 based on PDx and either SDx or OR procedure

Patients are assigned to MDC 24 when they have

1. PDx of trauma

and

2. At least two significant trauma diagnosis codes (either as PDx or SDx) from different body site categories (defined in this chapter , next to diagram).

Or

At least two significant OR procedure codes for trauma from different body site categories.

เพิ่ม Definition ของ Multiple significant trauma

Significant Trauma

Diagnoses

SITE	CATEGORY
1	Head
2	Chest
3	Abdominal
4	Kidney
5	Urinary System
6	Pelvis or Spine
7	Upper Limb
8	Lower Limb
0	Not Significant Trauma

OR Procedure

SITE	CATEGORY
A	Intracranial
B	Maxillofacial
C	Chest
D	Abdominal(included KUB)
E	Spinal
F	Upper Limb
G	Lower Limb
H	Skin (Wound debridement & skin graft)
J	Other sites

Surgical Partitioning

DC

OR Procedure combination for Multiple significant trauma



Yes

No

Intracranial w Spinal

(Proc site A+E)

2401

Intracranial w Wound Debridement

(Proc site A+H)

2402

Intracranial w Abdominal

(Proc site A+D)

2403

Intracranial w Lower Ext.

(Proc site A+G)

2404

Spinal w Wound Debridement

(Proc site E+H)

2405

Spinal w Abdominal

(Proc site D+E)

2406

Spinal w Lower Ext

(Proc site E+G)

2407

Wound Debridement w Abdominal

(Proc site D+H)

2408

Cancer

หลักเกณฑ์การให้รหัสผู้ป่วยโรคมะเร็งใน Thai DRG V 4

กรณีที่โรคหลักที่ให้การรักษากเกี่ยวกับมะเร็งให้ใช้มะเร็งเป็นโรคหลัก

เช่น ผู้ป่วย Acute myeloid leukemia (C92.0) ที่ไม่มีอาการ รับไว้เพื่อให้ยาเคมีบำบัด (Z51.1)

	V 3	V 4
การวินิจฉัยหลัก	Z51.1	C92.0
การวินิจฉัยอื่น	C92.0	Z51.1

รหัส Z51.0 (Radiotherapy session) และ Z51.1 (Chemotherapy session for neoplasm) จะใช้เป็น PDx ไม่ได้

ในช่วงเปลี่ยนผ่าน อนุโลมให้เป็น PDx ได้ในระยะหนึ่งก่อน (6 เดือน) โปรแกรม DRG Grouper จะช่วยสลับรหัสไปเป็น SDx และนำรหัสมะเร็งเป็น PDx แทน

Major Diagnostic Category 3

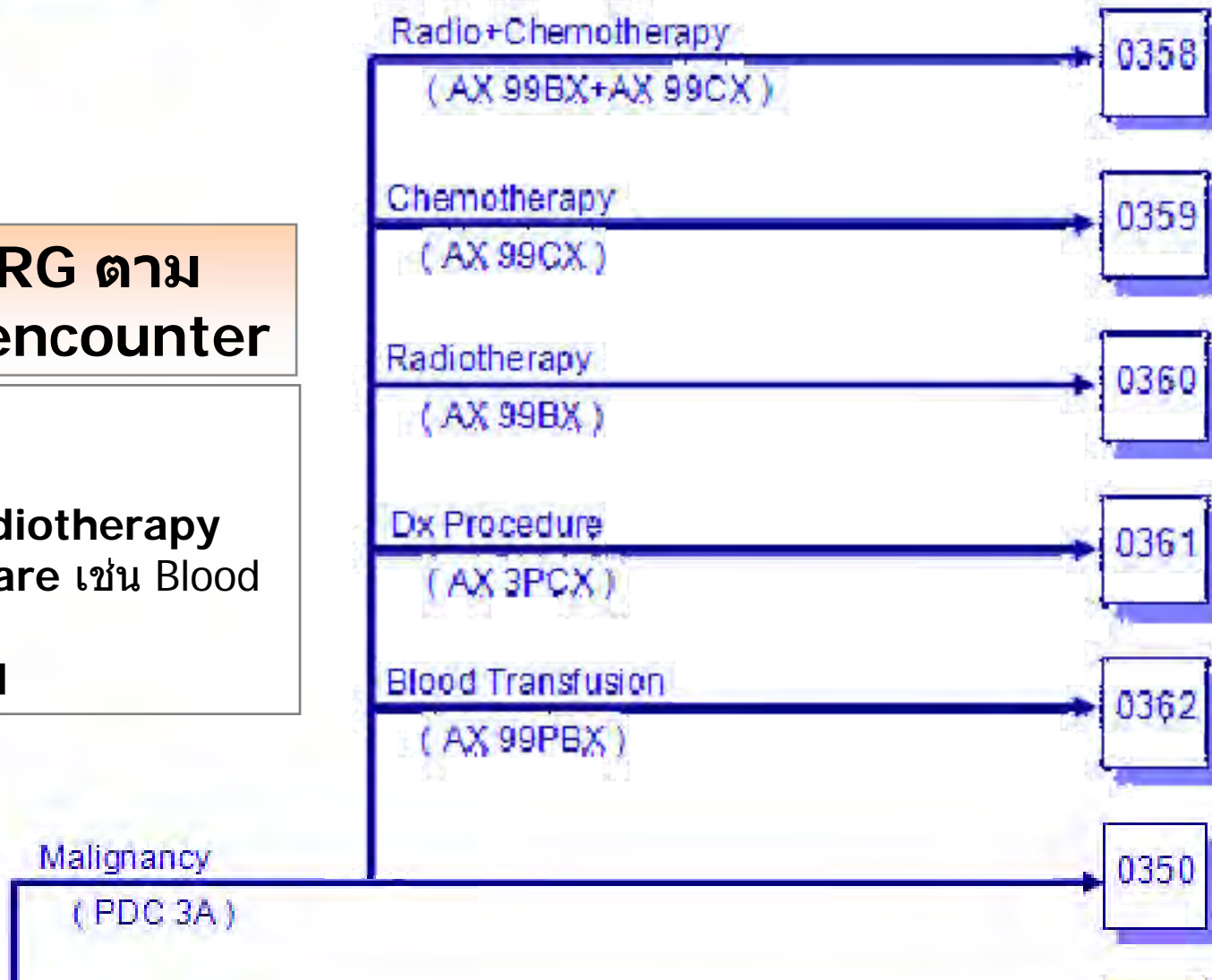
Diseases and Disorders of the Ear, Mouth and Throat

Medical Partitioning

DC

แยก DRG ตาม Service encounter

- Surgery
- Diagnosis
- Chemo/ radiotherapy
- Palliative care เช่น Blood transfusion
- Unspecified



Major Diagnostic Category 6

Diseases Disorders of the Digestive System

Medical Partitioning

DC

แยก DRG ตาม Service encounter

- Surgery
- Diagnosis
- Chemo/ radiotherapy
- Palliative care เช่น Blood transfusion
- Unspecified

2

Radio+Chemotherapy

(AX 99BX+AX 99CX)

0668

Chemotherapy

(AX 99CX)

0669

Radiotherapy

(AX 99BX)

0670

Dx Procedure

(AX 6PBX)

0671

Blood Transfusion

(AX 99PBX)

0672

Malignancy

(PDC 6A)

0650

G.I. Hemorrhage

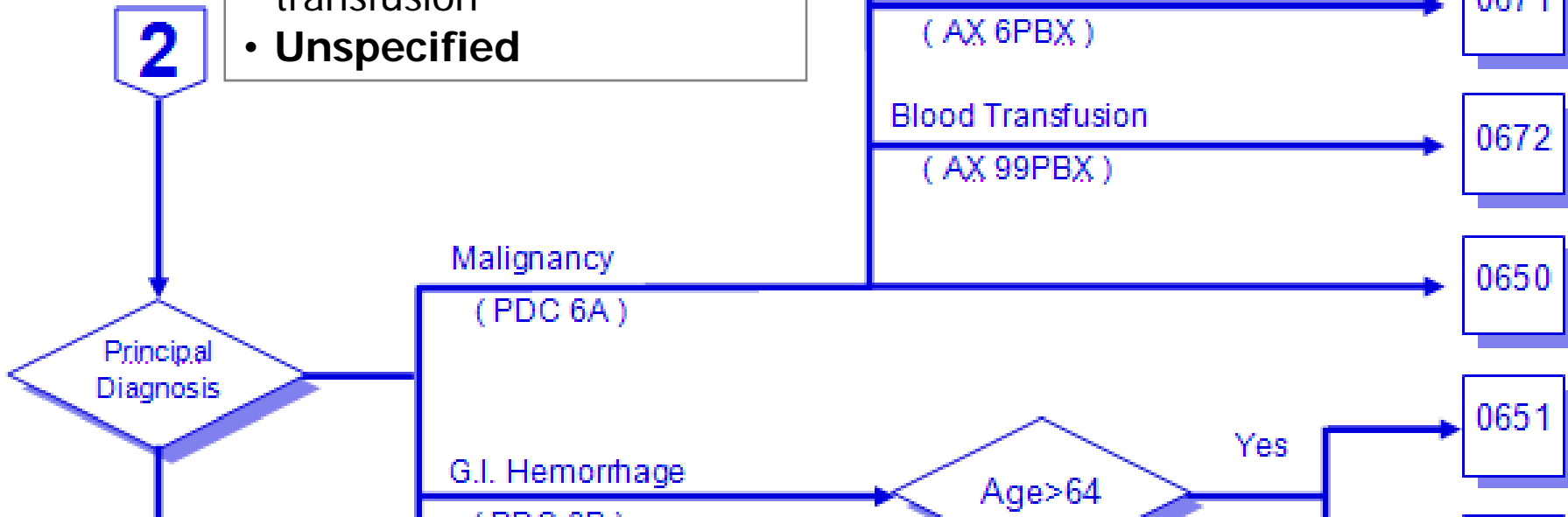
(PDC 6B)

Age>64

Yes

0651

Principal Diagnosis



Major Diagnostic Category 18

Infectious and Parasitic Diseases (Systemic or Unspecified Sites)

Surgical Partitioning

เพิ่มความละเอียดของการจัดชั้น
การผ่าตัดในบาง MDC จาก
Extensive/Non extensive OR
procedure → OR procedure
level 1-7

DC

OR Proc Level 7

1807

OR Proc Level 6

1806

OR Proc Level 5

1805

OR Proc Level 4

1804

OR Proc Level 3

1803

OR Proc Level 2

1802

OR Proc Level 1

1801



Yes

Medical Partitioning

No

Septicemia
(PDC 18A)

Age > 14

Yes

1850

No

1851