Harms Training Case Scenarios - Answers: April 26, 2018

These training cases were developed for the CIHR-funded study "Testing the World Health Organization's 11<sup>th</sup> Version of ICD" led by Cathy Eastwood, Danielle Southern, Alicia Boxill, Bill Ghali, Hude Quan, underway at the University of Calgary, Department of Community Health Sciences. This study involves coding 3000 full inpatient discharge records using ICD-11.

These cases were reviewed by Cathy Eastwood and Lori Moskal.

Codes were updated as of April 9, 2018.

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Case #	Case Summary	ICD-11 Codes with descriptions Last updated April 9, 2018 Beta Draft (Live version of ICD-11)	Comments
1	Patient experienced an unexpected burn to chest wall as a result of radiation therapy for lung cancer. The documentation reveals that the exposure time was inadvertently prolonged. Cold compresses were applied to relieve the patient's discomfort.	ND92.Z/PL01.C/PL31.1 2C25.Z&XK6G ND92.Z Burn of trunk except perineum and genitalia, depth of burn unspecified PL01.C Radiation therapy associated with injury or harm in therapeutic use PL31.1 Burn arising during procedure, as mode of injury 2C25.Z Malignant neoplasms of bronchus or lung, unspecified XK6G Unspecified laterality	
2	The patient sustained multiple rib fractures associated with chest compressions during cardiopulmonary resuscitation.	NA82.4/PL01.E/PL31.Z NA82.4 Multiple fractures of ribs PL01.E Cardiopulmonary resuscitation associated with injury or harm in therapeutic use PL31.Z Unspecified mode of injury or harm associated with a surgical or other medical procedure	
3	Patient had excision of a colon segment for cancer. On postoperative day one, the patient got out of the hospital bed without assistance and fell. The result was a fractured hip.	2B90.Z NC72.Z&XK6G/ PA60&XY69&XY7V&XE28K 2B90.Z Malignant neoplasms of colon, unspecified NC72.Z Fracture of femur, unspecified XK6G Unspecified laterality PA60 Unintentional fall on the same level or from less than 1 metre XY69 Developed after admission XY7V Postoperative XE28K hospital	

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4	Patient had left hip replacement performed. The operative report documents that after closure of the wound and while the patient was still in the operating room, one surgical sponge was noted to be missing in the sponge count. Intraoperative X-ray confirmed a sponge marker within the acetabulum; the patient was prepped and draped again. The incision was reopened to remove the sponge.	NE81.Y/PL00.80/PL31.3&XY69&XY9N NE81.Y Other specified injury or harm arising from a procedure, not elsewhere classified PL00.80 Musculoskeletal procedure associated with injury or harm, open approach PL31.3 Foreign body accidentally left in body, as mode of injury or harm XY69 Developed after admission XY9N Intraoperative	
5	Following infusion of blood products while in ICU, patient develops symptoms that are documented as a mild transfusion reaction.	NE80.Z/PK81.7/PL11.Z&XY69 NE80.Z Injury or harm arising following infusion, transfusion or therapeutic injection, unspecified PK81.7 Injection or infusion for therapeutic or diagnostic purposes associated with injury or harm in therapeutic use PL11.Z Unspecified mode of injury or harm associated with a surgical or other medical procedure XY69 Developed after admission	
6	Patient diagnosed with streptococcal sepsis following left-side oophorectomy for ovarian malignancy.	2C73.Z&XK8G 1G50&XN3NM/PL00.5Z/PL31.Z&XY69 2C73.Z Malignant neoplasms of ovary, unspecified XK8G Left 1G50 Sepsis without mention of septic shock XN3NM Streptococcus PL00.5Z Gynaecological or breast procedure associated with injury or harm in therapeutic use, unspecified approach PL31.Z Unspecified mode of injury or harm associated with a surgical or other medical procedure XY69 Developed after admission	

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7	A patient had an abdominal hysterectomy and was discharged home. She returned to hospital with a wound infection.	NE81.2Z/PL00.50/PL31.Z&XY6M NE81.2Z Surgical site infection, unspecified PL00.50 Gynaecological or breast procedure associated with injury or harm, open approach PL31.Z Unspecified mode of injury or harm associated with a surgical or other medical procedure XY6M Present on admission	
8	The patient was admitted for a mechanical valve replacement. As the incision was being closed, she arrested on the operating room table. An open cardiac massage was performed but was unsuccessful and the patient died in the operating room.	MC92.Z/PL00.17/PL31.Z&XY9N MC92.Z Cardiac arrest, unspecified PL00.17 Other cardiac procedure associated with injury or harm, unspecified approach PL31.Z Unspecified mode of injury or harm associated with a surgical or other medical procedure XY69 Developed after admission	
9	Two days following elective surgery for graft repair of an abdominal aortic aneurysm, patient develops respiratory failure requiring ventilator support.	BD50.4Z CB41.2Z/PL00.9Z/PL31.Z&XY69 BD50.4Z Abdominal aortic aneurysm, unspecified CB41.2Z Respiratory failure, unspecified PL00.9Z Vascular procedure associated with injury or harm, unspecified approach PL31.Z Unspecified mode of injury or harm associated with a surgical or other medical procedure XY69 Developed after admission	
10	Patient had an inguinal hernia repair and developed nausea and vomiting following surgery which settled quickly on its own.	DD51 ME00/PL00.3Z/PL31.Z&XY7V DD51 Inguinal hernia ME00 Nausea or vomiting	

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		PL00.3Z Gastrointestinal, abdominal, or abdominal wall procedure associated with injury or harm in therapeutic use, unspecified approach PL31.Z Unspecified mode of injury or harm associated with a surgical or other medical procedure XY69 Developed after admission	
11	Patient admitted for Anasarca. Patient developed metabolic alkalosis secondary to aggressive diuresis. COMORBIDITIES: A Fib [atrial fibrillation] / CHF [congestive heart failure] / chronic kidney disease [chronic renal failure] / hip replacement / hypertension / mitral valve replacement / pulmonary hypertension / rheumatoid arthritis.	<ul> <li>5C54/NE60/PL33.2/PL20&amp; XY69 MG39.1</li> <li>5C54 Alkalosis</li> <li>NE60 Harmful effects of drugs, medicaments or biological substances, not elsewhere classified</li> <li>PL33.2 Drug-related injury or harm in context of correct administration or dosage, as mode of injury or harm</li> <li>PL20 Drugs, medicaments or biological substances associated with injury or harm in therapeutic use XY69 Developed after admission</li> <li>MG39.1 Generalised oedema BC81.3Z Atrial fibrillation, unspecified</li> <li>BD1Z Heart failure, unspecified</li> <li>GB61.Z Chronic kidney disease, stage unspecified</li> <li>QB51.7 Presence of orthopaedic joint implants</li> <li>BA00.Z Essential hypertension, unspecified</li> <li>QB50.2 Presence of prosthetic heart valve</li> <li>BB01.Z Pulmonary hypertension, unspecified</li> <li>FA20.Z Rheumatoid arthritis, unspecified</li> </ul>	
12	Patient admitted for acute respiratory distress syndrome. Patient developed new pressure ulcer in the hospital. COMORBIDITIES: DM2 [type 2 diabetes mellitus]-NIDDM / morbid obesity.	CB00&XY6M EH70.Z/PL30/PL31.6&XY69 5A11/5B61.01 CB00 Acute respiratory distress syndrome	

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		XY6M Present on admission EH70.Z Pressure ulcer of unspecified grade PL30 Other health care related causes of injury or harm PL31.6 Pressure, as mode of injury or harm XY69 Developed after admission 5A11 Type 2 diabetes mellitus 5B61.01 Obesity in adults	
13	Patient admitted for cellulitis. Patient had a fall in emergency department and fractured elbow. COMORBIDITIES: BPH / dementia / DVT [deep venous thrombosis] / dyslipidemia / fracture, elbow / GERD [gastroesophageal reflux disease] / glaucoma, acute angle-closure / hypercholesterolemia / osteoarthritis / PE [pulmonary embolism] / UTI [urinary tract infection].	<ul> <li>1B70.Z NC32.0&amp;XK6G/PL30/PL34.E&amp;XY69</li> <li>1B70.Z Bacterial cellulitis or lymphangitis due to other and unspecified bacterium NC32.0 Fracture of upper end of ulna XK6G Unspecified laterality PL30 Other health care related causes of injury or harm PL34.E Problem associated with fall in health care XY69 Developed after admission</li> <li>GA90 Hyperplasia of prostate</li> <li>6D8Z Dementia, unspecified cause BD71.Y Other specified deep vein thrombosis</li> <li>5C61.Z Hypolipoproteinaemia, unspecified DA22.Z Gastro-oesophageal reflux disease, unspecified</li> <li>9C61.Z Glaucoma, unspecified</li> <li>5C60.0Z Hypercholesterolaemia, unspecified</li> <li>FA0Z Osteoarthritis, unspecified&amp; XK6G Unspecified laterality</li> <li>BB00.Z Pulmonary thromboembolism, unspecified</li> <li>GC08.Z Urinary tract infection, site and agent not specified laterality</li> </ul>	

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14	Patient admitted for chronic obstructive pulmonary disease. Patient developed hospital acquired pneumonia. COMORBIDITIES: A Fib [atrial fibrillation] / compression fracture / COPD [chronic obstructive pulmonary disease] / hernia / herniated disc / osteoporosis.	CA22.Z CA40.Y&XK6G&XB25&XY69 CA22.Z Chronic obstructive pulmonary disease, unspecified CA40.Y Other specified pneumonia XK6G Unspecified laterality XB25 Nosocomial XY69 Developed after admission BC81.3Z Atrial fibrillation, unspecified ND56.2 Fracture of unspecified body region DD5Z Hernias, unspecified FA80.Z Intervertebral disc degeneration, unspecified FB83.1Z Osteoporosis, unspecified	
15	Patient admitted for deep venous thrombosis. Patient experienced benzodiazepine withdrawal as it was stopped for delirium. Patient developed urinary tract infection and pneumonia while in hospital. COMORBIDITIES: angina (angina pectoris) / gout / polymyalgia rheumatica / urosepsis.	BD71.Y&XK6G 6C4E.40 6D70.1/PL20/PL33.Z GC08.Z/ PL30/PL34.Z&XY69 CA40.Z/ PL30/PL34.Z&XY69 BD71.Y Other specified deep vein thrombosis XK6G Unspecified laterality 6C4E.40 Other specified psychoactive substance withdrawal, uncomplicated 6D70.1 Delirium due to psychoactive substances including medications PL20 Drugs, medicaments or biological substances associated with injury or harm in therapeutic use PL33.Z Mode of injury or harm associated with exposure to a drug, medicament or biological substance, unspecified GC08.Z Urinary tract infection, site and agent not specified PL30 Other health care related causes of injury or harm	

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		PL34.Z Mode of injury or harm associated with other health care related causes, unspecified XY69 Developed after admission CA40.Z Pneumonia, organism unspecified PL30 Other health care related causes of injury or harm PL34.Z Mode of injury or harm associated with other health care related causes, unspecified XY69 Developed after admission	
		BA40.Z Angina pectoris, unspecified FA25.2Z Gout, unspecified FA22 Polymyalgia rheumatic	
16	Patient admitted for hepatitis, alcoholic. Patient had a fall. COMORBIDITIES: alcohol abuse (alcoholism) / alcohol withdrawal / gastritis / GI bleed (upper) / pancreatitis.	DB94.1Z QA8E&XY69 DB94.1Z Alcoholic hepatitis, unspecified QA8E Fall in health care without documented injury or harm XY69 Developed after admission 6C40.1Z Harmful pattern of use of alcohol, unspecified 6C40.4 Alcohol withdrawal DA42.Z Gastritis, unspecified	
17	Patient admitted for pancreatitis. Patient required soft restraints to keep nasogastric tube in place. COMORBIDITIES: None.	DC31.Z Acute pancreatitis, unspecified	
18	Patient admitted for pneumonia. Patient experienced urethra trauma likely secondary to urinary catheter. COMORBIDITIES: COPD [chronic obstructive pulmonary disease] / dementia / DM2 [type 2 diabetes mellitus]-NIDDM / hypertension / narcolepsy / prostate cancer / psoriasis.	CA40.Z NB92.3Z/PL12.10/PH32.Z& XY69 5A11 BA00.Z 2C82.Z CA40.Z Pneumonia, organism unspecified	

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		<ul> <li>NB92.3Z Injury of urethra, unspecified</li> <li>PL13.10 Gastroenterology or urology devices associated with adverse incidents, urinary catheter</li> <li>PH32.Z Mode of injury or harm associated with a surgical or other medical device, implant or graft, unspecified</li> <li>XY69 Developed after admission</li> <li>SA11 Diabetes mellitus type 2</li> <li>BA00.Z Essential hypertension, unspecified</li> <li>2C82.Z Malignant neoplasm of prostate, unspecified</li> <li>6D8Z Dementia, unknown or unspecified cause</li> <li>7A20.Z Narcolepsy, unspecified</li> <li>EA90.Z Psoriasis of unspecified type</li> <li>CA22.Z COPD</li> </ul>	
19	Patient admitted for Sepsis. Patient had a traumatic bleed secondary to urinary catheter. COMORBIDITIES: back pain / carpal tunnel syndrome / COPD [chronic obstructive pulmonary disease] / DM2 [type 2 diabetes mellitus]-NIDDM / hypertension.	1G50 NF0A.2/PK93.10/PL12.Z&XY69 5A11 BA00.Z 1G50 Sepsis without mention of septic shock NF0A.2 Traumatic secondary or recurrent haemorrhage, not elsewhere classified PK93.10 Gastroenterology or urology devices associated with adverse incidents, urinary catheter PL12.Z Mode of injury or harm associated with a surgical or other medical device, implant or graft, unspecified XY69 Developed after admission 5A11 Type 2 diabetes mellitus BA00.Z Essential hypertension ME96.2Z Symptom or complaint of the back, unspecified CA22.Z Chronic obstructive pulmonary disease, unspecified 8C10.0 Carpal tunnel syndrome	

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20	Patient admitted for sepsis. Patient needed urgent hemodialysis. Multiple attempts to inset a line which caused hematoma. COMORBIDITIES: chronic kidney disease [chronic renal failure] / depression / DM2 [type 2 diabetes mellitus]-NIDDM / fracture, pelvic / hypertension.	1G50 NB92.Z&XJ9NV /PL00.91/PL31.Z GB61.Z 5A11 BA00.Z 1G50 Sepsis without mention of septic shock NB92.Z Injury of urinary or pelvic organs, unspecified XJ9NV Contusion PL00.91 Vascular procedure associated with injury or harm, percutaneous approach PL31.Z Unspecified mode of injury or harm associated with a surgical or other medical procedure GB61.Z Chronic kidney disease, stage unspecified 5A11 Type 2 diabetes mellitus BA00.Z Essential hypertension, unspecified 6A7Z Depressive disorders, unspecified NB52.Z Fracture of lumbar spine or pelvis, unspecified XJ44E Closed fracture XA8Y23 Pelvic bone	
21	Patient admitted for urinary tract infection. Patient developed urinary catheter associated bleeding. COMORBIDITIES: chronic kidney disease [chronic renal failure] / COPD [chronic obstructive pulmonary disease] / GI bleed (lower) / hypertension.	GC08.Z MG37/ PL13.10/PL32.Z BA00.Z GC08.Z Urinary tract infection, site and agent not specified MG37 Haemorrhage not elsewhere classified PL13.10 Gastroenterology or urology devices associated with adverse incidents, urinary catheter PL32.Z Mode of injury or harm associated with a surgical or other medical device, implant or graft, unspecified BA00.Z Essential hypertension, unspecified	

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		GB61.Z Chronic kidney disease, stage unspecified CA22.Z COPD, unspecified ME34.2Z Digestive system haemorrhage, unspecified	
22	Patient admitted for acute kidney Injury (acute renal failure). Patient had symptomatic hypokalemia not recognized for 2 days. COMORBIDITIES: anemia, iron deficiency / cancer, remote >5 years / colon cancer / colostomy / DM2 [type 2 diabetes mellitus]- NIDDM / dyslipidemia / GERD [gastroesophageal reflux disease] / hypertension.	<ul> <li>GB60.Z</li> <li>SC57/ PL30/PL34.A</li> <li>SA11</li> <li>BA00.Z</li> <li>GB60.Z Acute kidney failure, unspecified</li> <li>SC57 Hypokalaemia</li> <li>PL30 Other health care related causes of injury or harm</li> <li>PL34.A Problem associated with delayed diagnosis</li> <li>SA11 Type 2 diabetes mellitus</li> <li>BA00.Z Essential hypertension, unspecified</li> <li>2B90.Z Malignant neoplasms of colon, unspecified</li> <li>3A00.Z Iron deficiency anaemia, unspecified</li> <li>QC51.0 Family history of malignant neoplasm of digestive organs</li> <li>QB61.4 Presence of colostomy</li> <li>SC61.Z Hypolipoproteinaemia, unspecified</li> <li>DA22.Z Gastro-oesophageal reflux disease, unspecified</li> </ul>	
23	A man underwent coronary angiography; one stent was placed and bypass surgery was scheduled for 4 days later. He developed bleeding at the catheter site and returned to the hospital. A computerized tomography [CT] scan revealed a large retroperitoneal hematoma, which was repaired surgically. While in the hospital awaiting the delayed bypass surgery, the patient had a cardiac arrest and died.	NB97.0/PL00.15/PL31.Z&XY6M MC92.Z/PL30 /PL34.B&XY69 NB97.0 Retroperitoneal haemorrhage or haematoma PL00.15 Other cardiac procedure associated with injury or harm, percutaneous approach PL31.Z Unspecified mode of injury or harm associated with a surgical or other medical procedure XY6M Developed after admission	

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		MC92.Z Cardiac arrest, unspecified PL30 Other health care related causes of injury or harm PL34.B Problem associated with delayed treatment XY69 Developed after admission	
24	Following hysterectomy, a patient-controlled analgesia (PCA) pump is mistakenly continued in a woman suffering an adverse reaction of acute respiratory insufficiency to morphine. Noticed only when her respiratory status set off an alarm.	CB41.0Z/PL20&XM69R4/PL13.5 CB41.0Z Acute respiratory failure, unspecified PL20 Drugs, medicaments or biological substances associated with injury or harm in therapeutic use XM69R4 Morphine PL13.5 Incorrect duration of administration or course of therapy, as mode of injury or harm	
25	A boy received an overdose of phenytoin due to ambiguous use of abbreviations.	QA70/QA87 QA70 Overdose of substance without documented injury or harm QA87 Problem with clinical documentation without documented injury or harm	
26	A man with a history of intravenous (IV) drug use is admitted to the hospital and found to have an epidural abscess with surrounding osteomyelitis.	1D03.4/FB84.Z/QC46 1D03.4 Intraspinal epidural abscess FB84.Z Osteomyelitis or osteitis, unspecified QC46 Personal history of mental or behavioural disorder	