Government of Western Australia
Department of Health

Coding Education Newsletter

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Delivering a **Healthy WA**

Coding queries & audit discussion cases

The coding queries and audit discussion cases are available to view on our website. These will be published after each WACCAG meeting. The Coding Education Newsletter will be published quarterly.

http://www.clinicalcoding.health.wa.gov.au/news/

December 2014

Coding queries

1. Parkinson's disease with neurogenic orthostatic (postural) hypotension
2. Lavage of peritoneal cavity
3. Cerebral Palsy patients admitted for Botox injections
4. Rapid Endovascular Balloon Occlusion of the Aorta (REBOA)
5. Tribal circumcision
6. Drug induced psychosis

Audit discussion cases

1. Use disorder or harmful use (overuse) of laxatives
2. Condition unknown, coding of symptoms
3. Syncope (LOC) resulting in an injury

January 2015

Coding queries

1. 'Findings' on same-day endoscopy
2. AngioSeal for closure of arterial puncture

3. Calculation of hours for non-invasive ventilation

ACCD query responses

1. Weaning of continuous ventilatory support (CVS)
2. Haemorrhoidal artery ligation and rectal anal repair (HAL RAR)

Audit discussion cases

No audit discussion cases have been published for January.

February 2015

Coding queries

1. Infected haematoma
2. Occlusion of internal carotid artery
3. Methylated spirits poisoning
4. Upgrade of previous partial knee replacement (hemi-arthroplasty) to a total knee replacement (TKR/total arthroplasty)
5. Assignment of F17.1 *Mental and behavioural disorders due to use of tobacco, harmful use*
6. Admission for removal of long-term intercostal catheter

Audit discussion cases

1. Principal diagnosis for same day or *one* overnight stay (less than 2 days) kidney dialysis
2. Conditions developing after admission and abandoned procedures
3. Harmful use or use disorder (overuse) of alternative medicine/remedies causing haemochromatosis

ARDT update

The ABF/ABM implementation team have recently published an update to the Admission, Readmission, Discharge and Transfer Policy (ARDT) for WA Health Services.

At the time of the release of the ARDT policy in July 2014 there were a few 'under review' policy issues, some have been resolved and some are still a work in progress. The updated policy is attached to Operational Directive at:

http://www.health.wa.gov.au/circularsnew/circular.cfm?Circ_ID=13125

Also available at this link is the:

- ARDT Reference Chart
- Emergency Department – Guide to Short Stay Admission Criteria

ICD-10-AM/ACHI/ACS Ninth Edition implementation update

All discharges from the 1st July 2015 must be coded using the Ninth Edition Version of ICD-10-AM/ACHI/ACS. The Australian Consortium for Classification Development (ACCD) will be providing free online education on the changes from April/May. Further information about education will be available in the March *code it!* Newsletter along with a summary forecast of the changes you can expect to see.

Make sure you are registered with the ACCD to be able to access the Classification Information Portal (CLIP) and to receive email notifications.

https://www.accd.net.au/Clip/

The Coding Education Team will be developing additional Ninth Edition

education as a supplement to the online learning.

The Ninth Edition Hardcopy Books are now available for purchase through AR-DRG Classification System Product Sales website

http://ar-drg.laneprint.com.au/

For any enquires, refer to the IHPA FAQ webpage

http://ar-drg.laneprint.com.au/faq/

Or contact

classification.licensing@ihpa.gov.au.

Clinical review

Coding abnormal laboratory findings

The role of testing: evaluating test results in a clinical context

A clinician evaluates all relevant findings; laboratory/test results, patient history, physical examination and other diagnostic testing, before settling on a diagnosis and developing a treatment plan. Given the variability of testing and the potential for false results, a diagnosis is never made solely on the basis of a single laboratory test result.

The clinician should ask, 'Do the test results fit with the other pieces of the puzzle?' (AACB 2015)

Similarly, the coder must ask does the test I am coding fit with the clinical picture of this inpatient admission and apply ACS 0001 *Principal Diagnosis*, ACS 0002 *Additional Diagnoses*, and 1802 *Signs and Symptoms*.

As a general rule do not code symptoms, signs and abnormal laboratory findings. There is usually a definitive diagnosis which explains these. Coders need a good clinical knowledge to recognise the common signs and symptoms of conditions and the laboratory tests typically requested. This is of particular importance when laboratory tests are unfamiliar or have similar terminology.

If a definitive diagnosis has not been made the coder needs to assign a code based on the available documentation and this may only be symptoms, signs and abnormal laboratory findings.

Tests that may be confused

Same test performed for different reasons:

- ***HCG* test:** a ***pregnancy test***, or, a ***tumour marker*** in non-pregnant female/male for germ cell tumours of ovaries/testicles and gestational trophoblastic disease (GTD) of the uterus.

Similar sounding but different tests:

- ***25-hydroxyvitamin D level:*** requested when calcium levels are low and/or there are symptoms of vitamin D deficiency (such as in rickets or osteomalacia),

  Or ***1,25-dihydroxyvitamin D level:*** requested when calcium levels are high or there is excess vitamin D production (as in sarcoidosis and some lymphomas).

- ***ACTH level:*** is used to determine the causes of excessive cortisol levels (Cushing's syndrome) or low cortisol levels (Addison's disease),

Or, ***SynACTHen Stimulation Test:*** if initial cortisol level is low, synthetic ACTH is injected to test if there is adrenal gland failure (as in Addison's disease).

- ***CK:*** requested for inflammation/myositis and damage to muscles (rhabdomyolysis, crush injuries, drugs/toxins etc)

  Or ***CK isoenzymes:*** to distinguish between damage to heart muscle(CK-MB), skeletal muscle(CK-MM), or smooth muscle(CK-BB, such as intestines and uterus).

- ***Homocysteine (plasma):*** for diagnosis of vitamin B12 or folate deficiency (e.g. malnutrition).

  Or ***Homocysteine (urine):*** for diagnosis of inherited homocysteinuria in infants.

- ***Lactate,*** or ***Lactate dehydrogenase*** (LDH) or ***Lactate/Pyruvate*** levels

  (Dr N. Hadlow, PathWest, personal communication January 6. 2015)

An example in more detail:

Lactate Dehydrogenase (Lactic Acid Dehydrogenase, LDH)

LDH is an enzyme found in most body tissues and in bacteria. It plays an important role in cellular respiration, the process by which glucose is converted into energy. (Nemours Centre for Children's Health Media 2015)

Blood (serum/plasma) levels of LDH are normally low. When tissues are damaged by injury or disease (acute or chronic), LDH is released into the blood. LDH may also be released into other body fluids e.g. cerebrospinal, pleural, pericardial and peritoneal fluid.

An elevated level of LDH may be found in the following conditions:

- Anaemia e.g. haemolytic, pernicious/megaloblastic anaemia
- Infections e.g. infectious mononucleosis (glandular fever), bacterial meningitis, encephalitis, HIV
- Sepsis
- Intestinal and lung infarction
- Acute kidney disease
- Acute liver disease
- Acute muscle injury; trauma or disease (AMI)
- Pancreatitis
- Bone fractures
- Germ cell tumours (testicular/ovarian), lymphoma, leukaemia, melanoma, neuroblastoma
- Excessive exercise, haemolysis of blood sample and increased platelet count

LDH is a non-specific test, i.e. it is not diagnostic. It is a general indicator (screening test) for the presence and severity of tissue damage. Further tests are usually necessary to determine the type of damage occurring e.g. LDH isoenzymes, U&E, FBC, body fluid analysis (e.g. CSF), and tumour markers. These tests help diagnose the condition or identify the organs involved. Once the diagnosis is confirmed LDH levels may be used to

monitor progress of the condition/treatment. (AACC 2015)

Lactate (Lactic Acid, L-Lactate)

Lactate is produced in excess by muscle, blood, brain, and other tissues when there is insufficient oxygen or when there is a disruption of cell energy production (disruption of *aerobic* metabolism). Lactate is the by-product of *anaerobic* metabolism. The normal level of lactate in blood and CSF is low. It is metabolised by the liver. Lactate accumulates if produced faster than liver clearance.

When lactic acid production increases significantly, the affected person is said to have hyperlactataemia, which can then progress to lactic acidosis (an acid/base or pH balance abnormality). Symptoms such as muscular weakness, shortness of breath and rapid breathing, nausea and vomiting, sweating, and coma may be present.

An elevated level of Lactate may be found in the following examples:

- Hypoxia; shock from trauma, hypovolemia, sepsis, AMI, CCF, pulmonary oedema, and severe anaemia
- Uncontrolled diabetes mellitus
- Liver and kidney disease
- Rare inherited metabolic or mitochondrial conditions e.g. glucose-6-phosphatase deficiency, muscular dystrophy
- Thiamine (Vitamin B1) deficiency
- Use of certain drugs such as metformin and phenformin

Lactate is also a nonspecific test and not diagnostic. Other tests are performed to determine the underlying condition causing the increased lactate e.g. ABGs, lactate/pyruvate ratio, FBC, U&E, BSL, liver and renal function tests, blood cultures, drug and toxicology screens, UA , and CSF analysis (in meningitis). (AACC 2015)

Lactate to Pyruvate Ratio (L:P) ratio

A lactate/pyruvate ratio may be used to differentiate between causes of lactic acidosis.

Pyruvate is a substance produced by and used by cells in the production of energy. The mitochondria within cells metabolise glucose in a series of steps. One of the steps involves pyruvate, and the following step requires oxygen. When the oxygen level is low, pyruvate accumulates and is converted to lactate, resulting in an accumulation of lactate and then lactic acidosis. Impaired mitochondrial function (e.g. congenital respiratory chain complex or TCA cycle disorders), can result in increased pyruvate and lactate. The (L:P) ratio will be *high.*

There are certain congenital disorders (inborn errors of metabolism) in which pyruvate is not converted to lactate. One example is pyruvate dehydrogenase deficiency. In these cases pyruvate will accumulate, the blood level of pyruvate will be high, the lactate level will be unchanged, and the (L:P) ratio will be *low*. (AACC 2015) (ARUP 2015)

Coding example

Coding a newborn admitted to special care nursery for observation for “High Lactates”.
Points to consider

1. This is not a case of LDH elevation.
2. Elevated lactate in a newborn would indicate a severe illness due to hypoxia resulting from abnormal respiration/ventilation/oxygenation or

a metabolic condition disrupting aerobic metabolism.

3. Lactate is a metabolic acid that in very high levels results in lactic acidosis, a metabolic acidosis.
4. “High lactates” would prompt the coder to search for a documented underlying cause of the high lactate (e.g. fetal distress) or a diagnosis of lactic/metabolic acidosis.

For diagnosis of lactic acidosis in a neonate, assign:

P74.0 *Metabolic acidosis of newborn*,

Following index pathway: Acidosis,

- metabolic NEC

-- newborn (late).

Note: As per the index instruction at “Acidosis, fetal – See Distress/fetal” if there is documentation of fetal distress, fetal distress should be coded in preference to acidosis.

If an underlying cause for the high lactate OR a diagnosis of lactic acidosis cannot be confirmed (by study of available documentation or via clinical consultation) assign

R79.8 *Other specified abnormal findings of blood chemistry*

Following index pathway:

abnormal/abnormality/abnormalities,

-blood gas level

References

The American Association for Clinical Chemistry (AACC). 2015. “Lactate.” Lab Tests Online. http://labtestsonline.org/understanding/analytes/lactate/tab/test

The American Association for Clinical Chemistry (AACC). 2015. “LD.” Lab Tests Online. http://labtestsonline.org/understanding/analytes/ldh/tab/test/.

ARUP Laboratories. 2015. “Lactate to Pyruvate Ratio.” Laboratory Testing Directory. Accessed January 7, http://ltd.aruplab.com/Tests/Pub/2007935.

The Australasian Association of Clinical Biochemistry (AACB). 2015. “The role of testing: evaluating test results in a clinical context.” Lab Tests OnLine-Australasia-Explaining Pathology. Accessed January 7, http://www.labtestsonline.org.au/understanding/test-accuracy-and-reliability/role-of-testing.

Nemours Centre for Children’s Health Media. 2015. “Blood Test: Lactate Dehydrogenase (LDH).” KidsHealth. Accessed January 7, http://kidshealth.org/parent/system/medical/test_ldh.html.

Coding tip

"Helicobacter gastritis," so documented

ACS 1122 *Helicobacter pylori* states:

"Helicobacter pylori (H. pylori) infection is associated with:

- H. pylori-associated chronic gastritis (active chronic gastritis)
- duodenal ulcers
- MALT lymphoma
- gastric ulcers

B96.81 *Helicobacter pylori [H. pylori] as the cause of diseases classified to other chapters* is assigned when it is found in the presence of the above conditions or there is a documented association with another condition."

B96.81 can be assigned in addition to any condition, including any type of gastritis (e.g. acute or unspecified) as long as there is a clearly documented association between H.pylori and that condition. For example, documentation of "Helicobacter gastritis" constitutes a documented association, so assign:

K29.70 *Gastritis, unspecified, without mention of haemorrhage*

Index pathway:

Gastritis (simple) K29.70

and

B96.81 *Helicobacter pylori [H. pylori] as the cause of diseases classified to other chapters*

To follow index pathway:

Gastritis (simple)

-Helicobacter pylori-associated chronic

– see Gastritis/chronic

There must be documentation of the term "chronic" as it is an essential modifier.

Data Quality

Medicare Person Number (Individual Reference number)

As a reminder if your site or patients are required to claim from Medicare, recording incorrect Medicare and Person Numbers will cause claims to be rejected by Medicare. The following information has been prepared to help these and all sites when reporting Medicare Person Numbers.

The picture above shows a typical Medicare card and the various information on the face of the card

1 Medicare Number. This is the ten digit number on top of the card.
2 Individual Reference Number. This is the one digit number to the left of the person's name
3 Valid to. Ensure the date is entered as per your Patient Administration System requirements.

It is important to note that when entering the details from a Medicare card that you enter the Individual Reference Number for the person that is being provided with services. Most Patient Administration Systems will require you to enter an Individual Reference Number, sometimes referred to as a Person Number, as a mandatory value.

Please note that there is no default or 'unknown' value for Individual Person Numbers, so entering a '9' or '0' under these circumstances is incorrect. If you are required to enter information for newborns or young children, entering a '1' is also incorrect as they are unlikely to ever be listed as the only entitlement holder on a Medicare card. If your site has obstetric patients and delivers newborns, you should note that a newborn is not automatically registered with Medicare upon birth. Sites with newborns should not be supplying a Medicare Number for a baby until it is registered. Please contact Medicare for any further advice in this regard

The Data Quality team would like to thank all sites that are submitting correct Medicare Number and Medicare Person Number data as part of their data submissions. We hope that your site-specific procedures for collecting and validating Medicare information from patients continue to be accepted into everyday practice when admitting patients at your facility.

Wherever possible, please record these details from the physical card itself into your Patient Administration System. Should you have any concerns regarding the collection and submission of Medicare information, please contact the Data Integrity Team on the following email

hmds.edits@health.wa.gov.au

Or contact Medicare offices directly for specific Medicare advice.

Coder spotlight

We would like to thank Bill Pyper for interviewing Serina Wong.

Mrs Serina Wong retired from her position as Senior Programme Analyst for the WA Department of Health on 7th October 2014.

Serina was born and educated in Pontian, Malaysia, and first came to Perth in the 1970s as a student nurse. She chose Perth partly because she had a cousin living here and partly because of the proximity to home (in case of homesickness). Regular visits home during semester breaks had the added attraction of re-connecting with a young man, Stephen Wong; they had just started seeing each other.

After graduating, Serina returned to Malacca. There she worked as an occupational health nurse before taking a position as staff nurse at Malacca General Hospital. Later, she made the move to community nursing, providing postnatal health checks and caring for infants and new mothers. She was also involved, at this time, in school vaccination programs and has fond memories of working with children at both high school and primary school level.

In 1988 Serina and Stephen came to Perth for a holiday, the first time back for Serina and the first time ever for Stephen. Stephen was impressed by the order, cleanliness and relaxed pace of life in 1980s Perth. On returning to Malaysia the Wongs applied for immigration and were accepted within months. Later that same year Serina, Stephen and their three young children, Stephanie, Sheryl and Shaun, arrived in Perth to begin a new phase in their lives. Serina found work immediately at RPH, moving later to Silver Chain. A

back injury forced her to re-consider her long-term career prospects and in 1989 she withdrew from clinical nursing and accepted a position as trainee 'morbidity classification officer' at the Department of Health (DoH). This was Serina's first introduction to ICD, coding, demographic data, health statistics, and data-editing. Serina enjoyed it from the start. On moving to a desk job there was, initially, a sense of loss. In applying herself to this new job, she came to feel that her skills and knowledge were not lost, just employed in a different way. At that time (1990s) clinical classification in WA was in the process of being fully devolved to the hospitals. Prior to this only the largest hospitals had their own clinical coders. Others sent in hand written 'inpatient summary forms' which were then translated into code at DoH and data-entered centrally. Serina was successful in gaining one of the few permanent positions as a trainer and data-editor within this new system of hospital-based devolved coding.

After several years in that position Serina capitalized on her experience by becoming one of the first people to open a private consultancy in WA, offering clinical coding advice, relief, education and auditing services direct to WA hospitals, public and private. She kept up her role as a senior partner in this business for the duration of her career. In 2004 she re-joined DoH as a part-time auditor, while still maintaining her business role. Gradually she wound down her business commitments to focus on auditing. Serina completes her career as a much missed employee whose extensive experience in data editing, classification, admission policy and other areas of health data reporting will not easily be replaced.

We asked Serina which of her many positions, on reflection, brought her the most joy. She found it impossible to choose between two: working with children as a school nurse and her auditing role at DoH. She enjoyed the challenge of mastering a large body of technical knowledge and helping others, wherever she could, to negotiate their way through the many rules and standards.

We wish Serina much future happiness as she balances the new demands of family life, travelling the world, and her ongoing commitment to church and community work.