New Zealand Convention

Z58.7 Exposure to tobacco smoke

Introduction:

Morbidity data is collected in New Zealand using The International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM), The Australian Classification of Health Interventions (ACHI) and The Australian Coding Standards (ACS). The rules and conventions of ICD-10-AM/ACHI/ACS govern clinical coding practice and underpin the consistency and accuracy of clinical coded information submitted to the National Minimum Data Set (NMDS).

A New Zealand Convention is an additional data collection requirement for New Zealand. The Conventions are developed and defined by the Ministry of Health in collaboration with relevant stakeholder groups. A convention may be an amendment to an existing Australian Coding Standard or a stand alone data collection requirement.

Background:

Second hand smoke exposure, often referred to as ‘passive smoking’ or ‘environmental tobacco smoke’ (ETS), is the inhalation of smoke from tobacco products used by others. It occurs when tobacco smoke permeates any environment, resulting in inhalation by people within that environment. This smoke is referred to as ‘side-stream smoke’, as distinct from the ‘mainstream smoke’ that is inhaled directly by a smoker.

The phrase ‘third hand smoke’ was coined to identify the residual tobacco smoke contamination that remains after the cigarette is extinguished and second hand smoke has cleared from the air. International scientific research suggests that dust and surfaces in homes of smokers are contaminated with smoke residue, and that this residue contains many of the same toxic chemicals found in second hand smoke. In addition, exposure to these smoke residues leads to elevated levels of nicotine and nicotine byproducts in infants. Smoke residue exposure was 5-7 times higher in households of smokers trying to protect their infants by smoking outdoors than in households of non smokers, although it was 3-8 times lower than in households where the parents smoked indoors.

A New Zealand Health report written in 1997 estimated that passive smoking in New Zealand leads to at least 20 deaths and 1000 admissions to hospitals each year. Scientific evidence shows that exposure to second hand tobacco smoke causes disease, disability and death including respiratory conditions in children, asthma, sudden infant death syndrome, glue ear, upper respiratory tract irritation, lung cancer and ischaemic heart disease. Other diseases and conditions that are associated with passive smoking, but not so strongly, include stroke, low birthweight and respiratory tract cancers other than lung cancer.

Most experts believe that moderate, occasional exposure to second hand smoke presents a small but measurable cancer risk to non smokers. The overall risk depends on the dose received over time. The risk level is higher if non-smokers spend many hours in an environment where tobacco smoke is widespread, such as in a business where many employees or patrons are smoking throughout the day, or in a residential care facility where residents smoke freely.
Z58.7 Exposure to tobacco smoke:

The code Z58.7 Exposure to tobacco smoke was incorporated into ICD-10-AM as a result of changes made in the classification by the World Health Organisation (WHO) Update Reference Committee (URC) in 2005. The National Centre for Classification in Health (NCCH) gave instructions that this code was not to be used until guidelines outlining the criteria for which this code should be applied are formulated. To date there has been no development in this area.

In context with the 2009 Health Target – ‘Better help for smokers to quit’, there is considerable interest in New Zealand to develop and implement guidelines for the use of Z58.7 Exposure to tobacco smoke.

New Zealand Convention – Implementation date 1 October 2009:
Assign the code Z58.7 Exposure to tobacco smoke when:
- the patient, irrespective of age, has never smoked AND
- has been exposed to tobacco smoke in their home environment, working environment or recreational environment OR
- an infant is born to a mother who has smoked at any time throughout the pregnancy and there is no documented causal relationship between a neonatal condition and the mother’s tobacco usage.

Z58.7 Exposure to tobacco smoke is not assigned when:

1. The patient has been exposed to tobacco smoke as a one off or incidental encounter which may have exacerbated a chronic condition and/or precipitated an admission to hospital for any other conditions.

2. When a neonate (0-28 completed days) is born with or is subsequently admitted to hospital with any documented condition specifically attributed to maternal use of tobacco the code P04.2 Fetus and newborn affected by maternal use of tobacco is assigned according to the guidelines in the Australian Coding Standard (ACS) 1609 Newborns affected by maternal causes and birth trauma. The principles of this standard are outlined below:
   - Codes from categories P00-P04 are only used to indicate that a newborn has been affected by a maternal condition
   - A causal relationship must be established within the clinical record on the newborns condition (the effect) and the maternal condition that caused it
   - Two codes are required, one for the neonatal condition and the appropriate code from P00-P04. In relation to maternal use of tobacco the code P04.2 Fetus and newborn affected by maternal use of tobacco will apply
   - The code for the neonatal condition is always sequenced first

Note: In cases where the neonatal condition cannot be attributed to the maternal use of tobacco, assign Z58.7 Exposure to tobacco smoke as this completes the clinical picture that the baby still incurred maternal tobacco exposure.

Documentation of the mothers smoking status must be found in the baby’s clinical record only. The mother’s corresponding clinical record cannot be used. (See ‘Classification and Documentation Tips’).
Classification and Documentation Tips:

Clinical coders are reminded that an analysis of the entire clinical record must be performed before code assignment. In relation to finding documentation to support the assignment of Z58.7 Exposure to tobacco smoke clinical coders should consider:

- Looking for terms such as but not limited to ‘exposure’, ‘second hand smoke’, ‘environmental tobacco exposure (ETS)’ and ‘passive smoking’
- A causal relationship between a condition and the patients tobacco usage is not a prerequisite to assign Z58.7 Exposure to tobacco smoke
- Exposure to tobacco smoke can be precipitated by a parent, partner, relative, friend or houseguest with whom an adult or child resides
- There is no distinction made between exposure that occurs inside or outside of a home
- Occupational tobacco exposure will in the majority of cases apply to patients exposed in the workplace prior to the New Zealand Smoke-free Environments Act 1990
- Collaborating with DHB Smokefree Coordinator on how exposure to tobacco smoke is documented within the clinical record and on any dedicated forms
- Exposure to tobacco smoke includes tobacco products such as cigarette smoke, pipe smoke and cigar smoke
- Z58.7 Exposure to tobacco smoke should not be assigned if the patient is a smoker or ex-smoker
- Z58.7 Exposure to tobacco smoke should not be assigned if a patient has been exposed to other substances that are inhaled by others for example second hand marijuana smoke.
- Documentation found in a baby’s record is the only source of information that can be used to assign Z58.7 Exposure to tobacco smoke. The mother’s record cannot be used.
- The principal diagnosis for ‘well newborn’ cases will always be assigned from Category Z38 Liveborn infants according to place of birth. Z58.7 Exposure to tobacco smoke will be assigned as an additional diagnosis.
- Consult with Senior Advisors of Clinical Coding at coding_helpdesk@moh.govt.nz for clinical scenarios that do not fall within the parameters of this convention.

The following examples demonstrate the application of this new convention:

Example 1
Patient is admitted for elective coronary artery bypass graft with a diagnosis of unstable angina. Risk factors: Hypertension and obesity, patient has never smoked. Social: Married 47 years, partner smokes two packets of cigarettes a day.

Assign Z58.7 Exposure to tobacco smoke
Suggested free text: Z58.7 Exposure to tobacco smoke - Partner 2pkt/day

Example 2
Male patient aged 72 years with acute on chronic renal failure, secondary to diabetic nephropathy. Social history: Ex Hotel owner, retired 25 years ago. Patient has never smoked but states heavy exposure to tobacco smoke while working in hotel bar.

Assign Z58.7 Exposure to tobacco smoke
Suggested free text: Z58.7 Exposure to tobacco smoke – occupational, hotel
New Zealand Convention - Exposure to Tobacco Smoke (Passive Smoking)
Clinical Coding Services
Ministry of Health
October 2009

Example 3
A 32-year-old man diagnosed with asthma. Patient has never smoked but was previously involved in an amateur theatre company for 10 years where theatre company members smoked during meetings and rehearsals.

Assign Z58.7 Exposure to tobacco smoke
Suggested free text: Z58.7 Exposure to tobacco smoke -recreational- theatre company

Example 4
A nine-year-old boy admitted to hospital with chronic bronchitis. This is the third admission this winter. Parents are smokers but indicate that they only ever smoke outside the house.

Assign Z58.7 Exposure to tobacco smoke
Suggested free text: Z58.7 Exposure to tobacco smoke – parents smoke outside

Example 5
A 52-year-old taxi driver admitted to hospital for investigations of a pleural lesion. He is a non smoker but the car that he has driven for the past three years was owned by smokers and he has been unable to get rid of the tobacco residue.

Assign Z58.7 Exposure to tobacco smoke
Suggested free text: Z58.7 Exposure to tobacco smoke – tobacco residue in car

Example 6 (Neonatal Event)
Baby boy delivered 39 weeks, normal pregnancy and delivery. Antenatal history: Mother stopped smoking when the pregnancy was confirmed at 6 weeks.

Assign Z58.7 Exposure to tobacco smoke
Suggested free text: Z58.7 Exposure to tobacco smoke – Mother smoked 1st Trimester

Note: Documentation of the mother's smoking status must be found in the baby’s clinical record only. The mother’s corresponding clinical record cannot be used. (See Classification and Documentation Tips).

Example 7
A female patient is brought in by ambulance suffering an asthma attack. Patient states that she was attending a private party at a friend’s house where there were a large number of smokers. Patient has never smoked.

Z58.7 Exposure to tobacco smoke is not assigned. The tobacco exposure in this case is a one off encounter.

Example 8
A patient is brought in by ambulance to the emergency department after collapsing at work. She recalled passing a smoker on the street as she came into the building.

Z58.7 Exposure to tobacco smoke is not assigned. The tobacco exposure was an incidental encounter of exposure.
Example 9 (Neonate Event)
Spontaneous delivery of a girl at 28 weeks. Premature delivery caused by ongoing maternal tobacco use. Mother has declined cessation therapy offered during antenatal care.

Assign P04.2 Fetus and newborn affected by maternal use of tobacco in addition to the neonatal condition caused by maternal tobacco use.

Example 10 (Neonate Event)
Baby girl is born at 39 weeks. At delivery, mild respiratory distress, pinked up after bagging. Mother is a smoker.

Assign Z58.7 Exposure to tobacco smoke.
Suggested free text: \textit{Exposure to tobacco smoke in utero}.

P04.2 Fetus and newborn affected by maternal use of tobacco is not assigned in this case because the ‘respiratory distress’ has not been linked with the maternal tobacco use. Clinical coders are advised however to seek clinical clarification in these cases.

Documentation of the mother’s smoking status must be found in the baby’s clinical record only. The mother’s corresponding clinical record cannot be used. (See Classification and Documentation Tips).

Example 11 (Neonate Event)
Three-week-old infant admitted to hospital with bronchiolitis. Parents are non smokers, but two teenage siblings smoke at home.

Assign Z58.7 Exposure to tobacco smoke.
Suggested free text: \textit{Exposure to tobacco smoke – siblings smoke at home}

P04.2 Fetus and newborn affected by maternal use of tobacco is not assigned in this case because the mother is a nonsmoker and does not meet the criteria of ACS 1609 Newborns affected by maternal causes and birth trauma.

Example 12
A 7-year-old patient who has cerebral palsy secondary to prematurity caused by maternal tobacco exposure is admitted for respiratory review. Parents have previously been advised to stop smoking. Mother successfully stopped four months ago and is receiving ongoing support from Aukati KaiPaipa, Father continues to smoke but states that he has made efforts to only smoke outside on the verandah.

Assign P04.2 Fetus and newborn affected by maternal use of tobacco in addition to the neonatal condition caused by maternal tobacco use.

Where the situation arises where both P04.2 Fetus and newborn affected by maternal use of tobacco and Z58.7 Exposure to tobacco smoke could be applied, only one code is required to be assigned. In these cases, the code P04.2 Fetus and newborn affected by maternal use of tobacco will always take priority over Z58.7 Exposure to tobacco smoke. Coders are reminded to refer to ACS 1609 Newborns affected by maternal causes and birth trauma for additional information relating to the use of P04.2 Fetus and newborn affected by maternal use of tobacco.
Reference List:

   Passive smoking in New Zealand: health risks and control measures. Alistair Woodward, Professor of Public Health, Wellington School of Medicine, Trish Fraser, Director, Action on Smoking and Health.

2. How many deaths are caused by second hand cigarette smoke? Alistair Woodward and Murray Laugesen. 2001

3. Smokefree Law in New Zealand
   http://www.moh.govt.nz/moh.nsf/wpg_Index/About-smokefreelaw-secondhandsmoke

4. Tobacco Control in New Zealand

5. Health Effects of Smoking
   http://www.moh.govt.nz/moh.nsf/indexmh/tobacco-effects

6. WHO Tobacco Free Initiative
   http://www.who.int/tobacco/en/

7. How dangerous is second hand smoke?
   http://www.moh.govt.nz/moh.nsf/indexmh/tobacco-resources-questions#dangerous