Department of Disease Control Weekly Disease Forecast No.140_ CO Poisoning from Gas Water Heater (25 - 31 December 2017)

From the national disease surveillance system, during 2008 - 2017, there were 20 incidents of Carbon Monoxide (CO) poisoning causing 29 injured patients and 7 died.

In 2017, there were 4 incidents reported from Chiang Mai province with 6 patients and 1 died. CO poisoning from gas water heater causes dizziness, confusion, weakness, upset stomach, vomiting, chest pain or difficulty breathing, conscious lost and even death.



According to this week disease forecast, there is an increasing risk of Carbon Monoxide (CO) poisoning from gas water heater since Thailand has entered the cold season. During this time of the year many people will be visiting the cold areas where gas water heater are widely used.

The important risk factors are 1) poor air ventilation in the bathroom, e.g. no ventilation fan or ventilation window, 2) long duration bathroom use, i.e. over 15 minutes, 3) using bathroom after many prior occupancies, 4) having underlying diseases, i.e. heart disease, high blood pressure, anemia, respiratory diseases or breathing problems, and 5) using substandard gas water heater not certified by the Thai Industrial Standards Institute (TISI).

The Department of Disease Control, therefore advises hotel and resort owners and tourism related sectors, to install only standard gas water heaters as recommended by the TISI and have regular maintenance checks. CO poisoning preventive measures should be strictly followed, i.e. 1) install ventilation window and/or ventilation fan in the bathroom, 2) install gas water heater outside the building, 3) post the advice and warning sign regarding the risk factors and instruction for safe use of the appliance in the bathroom, 4) In case of CO poisoning, the EMS hotline 1669 should be immediately called for help, and 5) after the patient get out of the room, the bathroom door should be left open for at least 15 minutes. There is also an urgent need to call a qualified technician to check and fix the heater before next use.

For queries or additional information, please call DDC hotline 1422.

