

Major inorganic elements in tap water samples in Peninsular Malaysia.

ABSTRACT

Introduction: Quality drinking water should be free from harmful levels of impurities such as heavy metals and other inorganic elements. **Methods:** Samples of tap water collected from 24 locations in Peninsular Malaysia were determined for inorganic element content. Minerals and heavy metals were analysed by spectroscopy methods, while non-metal elements were analysed using test kits. **Results:** Minerals and heavy metals determined were sodium, magnesium, potassium, calcium, chromium, manganese, iron, nickel, copper, zinc, arsenic, cadmium and lead while the non-metal elements were fluoride, chloride, nitrate and sulphate. Most of the inorganic elements found in the samples were below the maximum permitted levels recommended by inter-national drinking water standard limits, except for iron and manganese. Iron concentration of tap water from one of the locations was higher than the standard limit. **Conclusion:** In general, tap water from different parts of Peninsular Malaysia had low concentrations of heavy metals and inorganic elements.

Keyword: Heavy metals; Inorganic elements; Minerals; Peninsular Malaysia; Tap water.