



best tests

QUIZ FEEDBACK

Alcohol, Mercury & INR

Introduction

This quiz feedback provides an opportunity to revisit Best Tests, November 2010, which focused on appropriate use of laboratory tests when considering hazardous drinking, mercury toxicity and INR monitoring. All general practitioners who participated in this quiz will receive personalised online feedback and be allocated one hour of CQI activity.

1. In primary care, what is the best approach for identifying heavy drinking?		Your peers	Preferred
<input type="checkbox"/>	Use a questionnaire on all young adults to detect binge drinking	15%	
<input type="checkbox"/>	Ask family members about the patient's drinking habits	4%	
<input type="checkbox"/>	Only investigate if blood tests show some potentially alcohol related changes	1%	
<input type="checkbox"/>	Ask a simple screening question	97%	✓

Comment:

General practice is in an ideal position to identify hazardous drinking. However, a high level of suspicion may be required to detect alcohol-related issues as they can be easily missed or “disguised” by other health problems. It is currently recommended that a useful approach for detecting hazardous drinking is to integrate two to three simple questions about alcohol use into a primary care consultation to provide an opening for a more in-depth discussion.

2. Why do blood tests have a limited role when investigating hazardous drinking?		
	Your peers	Preferred
<input type="checkbox"/> Results may be elevated by a number of other conditions	92%	✓
<input type="checkbox"/> Result may not be elevated in all people who drink at harmful levels	77%	✓
<input type="checkbox"/> Results may not be elevated by binge drinking	75%	✓
<input type="checkbox"/> The results need to be interpreted with caution	84%	✓

Comment:

Laboratory tests are not recommended for the routine screening of hazardous drinking in primary care. This is because, although blood tests frequently show a number of changes in relation to alcohol use, they generally lack sufficient sensitivity and specificity for this purpose. Instead, studies have shown that validated questionnaires are the best way to screen for hazardous alcohol use because they are more sensitive, more specific and less expensive than blood tests, which are only indicated as an adjunct to screening.

3. Approximately what percentage of New Zealanders identify themselves as current drinkers		
	Your peers	Preferred
<input type="checkbox"/> 20%	1%	
<input type="checkbox"/> 40%	2%	
<input type="checkbox"/> 60%	5%	
<input type="checkbox"/> 80%	92%	✓
<input type="checkbox"/> 100%	0%	

Comment:

Alcohol consumption is an established part of New Zealand culture, with 80% of all adults over the age of 18 years, identifying themselves as current drinkers.

4. Approximately what percentage of New Zealanders are estimated to drink at harmful levels?		
	Your peers	Preferred
<input type="checkbox"/> 20%	96%	✓
<input type="checkbox"/> 40%	2%	
<input type="checkbox"/> 60%	1%	
<input type="checkbox"/> 80%	<1%	
<input type="checkbox"/> 100%	0%	

Comment:

It has been estimated that 20–25% of New Zealanders consume alcohol at a harmful or hazardous level. It is important to keep in mind that the harms associated with alcohol are not just confined to the heaviest drinkers. Research has identified that the majority of alcohol related problems in people who drink are seen in the 90% that consume alcohol moderately, compared to the 10% that drink heavily.

5. Which of the following are potential sources of exposure to mercury?		
	Your peers	Preferred
<input type="checkbox"/> Amalgam dental fillings	71%	✓
<input type="checkbox"/> Handling liquid mercury	94%	✓
<input type="checkbox"/> Fish	95%	✓
<input type="checkbox"/> Paint work prior to 1970's	16%	

Comment:

Fish is by far the biggest source of exposure to organic mercury, in the form of methyl mercury. Organic mercury is passed along the food chain from smaller fish to larger predator fish, e.g. swordfish, shark, tuna, which contain the highest levels of accumulated mercury. Inhalation and skin absorption of mercury can occur when handling liquid mercury, e.g. broken thermometers, sphygmomanometers, fluorescent light bulbs. Dental amalgam fillings contain mercury but contribute only a minor amount to the total mercury levels in the body.

6. Which of the following are considered appropriate indications for testing mercury?		
	Your peers	Preferred
<input type="checkbox"/> The presence of amalgam fillings	2%	
<input type="checkbox"/> History of exposure to liquid mercury	81%	✓
<input type="checkbox"/> When investigating Alzheimer's disease	2%	
<input type="checkbox"/> Occupational health monitoring	93%	✓

Comment:

Situations in which mercury testing is indicated include; history of mercury ingestion (other than normal consumption of fish), known occupational risk or neurological symptoms that may be the result of mercury poisoning.

Situations in which mercury testing is not indicated include; patients with non-specific symptoms such as memory loss, cognitive decline, depression or chronic fatigue syndrome, the presence of amalgam fillings, autism spectrum disorder or Alzheimer's disease (there is no convincing evidence that mercury is linked to either of these conditions) or for routine "screening" or an "annual check".

7. For a patient treated with warfarin, for approximately what percentage of time it is reasonable to expect INR levels to stay in range?			
		Your peers	Preferred
<input type="checkbox"/>	20%	1%	
<input type="checkbox"/>	40%	3%	
<input type="checkbox"/>	60%	85%	✓
<input type="checkbox"/>	80%	12%	
<input type="checkbox"/>	100%	1%	

Comment:

Although the INR target range is usually 2.0 – 3.0, in most cases it is only in this range approximately 55 to 60% of the time. Computerised decision support provides an automated system in which the time within target can be increased to up to 70% in some cases.

8. What is the usual testing frequency for INR, for people established on warfarin?			
		Your peers	Preferred
<input type="checkbox"/>	2–4 weeks	7%	
<input type="checkbox"/>	4–6 weeks	83%	✓
<input type="checkbox"/>	6–8 weeks	14%	✓
<input type="checkbox"/>	8–10 weeks	<1%	
<input type="checkbox"/>	10–12 weeks	1%	

Comment:

Regular testing of the INR is essential for all people taking warfarin. For most people once the INR is stable, the rate of INR testing can be extended to two weekly and then four to six weekly. In some stable patients the frequency may be extended out to eight weeks. However, people with higher levels of risk, e.g. certain co-morbidities, may need more frequent testing.

Co-morbidities which can influence INR results include:

- Congestive heart failure – may cause hepatic congestion of blood flow and inhibit warfarin metabolism, this may be particularly troublesome during exacerbations of heart failure
- Hypothyroidism – decreased catabolism of vitamin K clotting factors may decrease INR values
- Hyperthyroidism – conversely, hyperthyroidism may increase catabolism of vitamin K clotting factors and increase INR values
- Liver failure – may cause elevation of INR due to reduced production of clotting factors
- Other illnesses – other intermittent conditions such as fever, vomiting and diarrhoea may affect the INR; ill patients may also reduce their usual dietary intake