

Hepatotoxic Drug Reactions

There are numerous drugs which can have toxic effects on the liver (and other organs), which can alter one or more of the liver enzymes (AST, ALT, ALP, GGT), or may cause cholestasis. Drugs commonly cause only a mild to moderate increase in enzyme activity or bilirubin, which return to normal when therapy is stopped.

It is advisable to change therapy if the patient is on long term treatment, and the drug can be demonstrated to be the cause of the hepatotoxicity by monitoring the enzyme activities during a period of withdrawal. Some drugs can cause significant and permanent liver disease with only minimal effects on the liver enzyme activities.

Idiosyncratic hepatotoxicity is uncommon, but is also unpredictable, not dose related, and may occur either immediately or after a period of exposure to the drug.

Examples of Drug Effects on the Liver (not all inclusive)

("Chemical Pathology in Diagnosis and Treatment", Mayne PD, 6th Edition 1994)

	<u>Necrosis</u>	<u>Hepatitis-like reaction</u>	<u>Chronic Hepatitis</u>	<u>Cholestasis</u>
alpha-methyldopa	+	+	+	+
Carbamazepine				+
Cholorambucil		+		+
Chlordiazepoxide		+		
Chlorpromazine				+
Chlorpropamide				+
Chlortetracycline	+			
Cytotoxic drugs	+			
Erythromycin				+
ferrous sulphate	+			
Halothane	+	+		+
Indomethacin				+
Isoniazid		+	+	
MAO inhibitors		+		
Methotrexate			+	
Nitrofurantoin		+	+	+
oral contraceptives				+
Oxyphenastatin		+	+	
PAS		+		
Paracetamol	+		+	
Phenothiazines				+
Phenylbutazone		+		
Phenytoin		+		
Salicylate	+			
Tolbutamide				+
Valproate	+			+

The chemical pathology team can be reached via email: chemicalpathologist@adhb.govt.nz or via Lablink (09) 307 4949 ext 22000 or 09-3078995

Emails will receive priority attention from the on-call chemical pathologist. Include the patients NHI.

After-hours: contact **Lablink (Auckland City Hospital ext. 22000 or 09-3078995) or hospital operator for on duty staff after hours** .

- **Dr Samarina Musaad (Clinical Lead):** SamarinaM@adhb.govt.nz ext. 22402
- **Dr Cam Kyle:** CampbellK@adhb.govt.nz ext 22052
- **Dr Weldon Chiu:** WeldonC@adhb.govt.nz ext. 23427
- **Dr Campbell Heron:** CHeron@adhb.govt.nz ext. 23427
- **Dr Sakunthala Jayasinghe:** Saku.Jayasinghe@adhb.govt.nz
- **Dr Owen Yi:** WenyiYi@adhb.govt.nz