GPSA
GENERAL PRACTICE SUPERVISORS AUSTRALIA

Fatty liver disease

Non-alcoholic fatty liver disease (NAFLD) is a broad term covering a spectrum of conditions, comprising fatty liver (simple steatosis), non-alcoholic steato-hepatitis (NASH) and cirrhosis. NAFLD can be characterised as the hepatic manifestation of the metabolic syndrome, with obesity and insulin resistance major risk factors. NAFLD has a prevalence of up to 30% in the Australian population, and while usually benign, can have serious sequelae. The most common presentation of NAFLD is an incidental finding of abnormal LFTs. It is essential for GP registrars to proactively identify and manage patients with NAFLD.

TEACHING AND LEARNING AREAS		• Risk factors for fatty liver disease • Epidemiology and natural history of NAFLD • Clinical and laboratory features of NAFLD • Differential diagnoses of NAFLD, and approach to investigation of abnormal LFTs (also see GPSA Teaching Plan on abnormal LFTs) • Key management approaches • Risk factors for progression to fibrosis • Indications for referral and local pathways
PRE- SESSION ACTIVITIES		• Read the 2013 AFP article Fatty Liver Disease – A Practical Guide for GPs
TEACHING TIPS AND TRAPS		• NAFLD is closely associated with metabolic syndrome, insulin resistance, diabetes and hyperlipidaemia • CVD is the major cause of death in patients with NAFLD • Of patients with NAFLD, approximately 25% will have NASH – of this group, 5-10% will develop cirrhosis or hepatocellular carcinoma • LFTs have little predictive value for severity of liver disease or future mortality risk until late disease • The sensitivity and specificity of USS for detecting hepatic fatty infiltration are 85% and 95% respectively – false negatives are therefore not uncommon • Every patient with NAFLD should undergo an assessment of hepatic fibrosis - use a validated calculator e.g. NAFLD Fibrosis Score • The cornerstone to managing NAFLD is achieving weight loss and reduction in CV risk factors - weight loss remains the only therapy with proven benefit and safety • A useful diagnostic test for NAFLD is response to weight loss - ALT should significantly improve with 10% weight loss • There is a lack of evidence that patients with NAFLD are at increased risk for liver injury from statins - statins can be prescribed for dyslipidaemia in patients with NAFLD
RESOURCES	**Read**	• NAFLD guidelines
	Watch	• Lecture on NAFLD - a 30-minute video
FOLLOW UP/ EXTENSION ACTIVITIES		• Registrar to undertake clinical reasoning challenge and discuss with supervisor

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Clinical Reasoning Challenge

Scott, a 57-year-old plumber, is recalled to the surgery with abnormal LFTs after a recent health check (see below). Scott denies any current symptoms and has no other significant PMHx. He drinks about 3 standard drinks per week and takes no medications, prescribed or otherwise. Other blood tests (FBC, EUC, TSH) were normal. Scott's BMI is 33.

Biochemistry

Total Bilirubin	23	umol/L	(4 - 20)
Alk Phos	112	U/L	(35 - 110)
Gamma GT	H 77	U/L	(5 - 50)
LDH	211	U/L	(120 - 250)
AST	H 76	U/L	(10 - 40)
ALT	H 88	U/L	(5 - 40)
Total Protein	74	g/L	(64 - 83)
Albumin	44	g/L	(36 - 47)
Globulin	28	g/L	(23 - 39)

QUESTION 1. You suspect NAFLD. What are the MOST IMPORTANT differential diagnoses? List as many as appropriate.

QUESTION 2. What investigations would you order at this point? List as many as appropriate.

QUESTION 3. Your investigations confirm a diagnosis of NAFLD. What are the most important aspects of management. List THREE.

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2

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ANSWERS

QUESTION 1

You suspect NAFLD. What are the MOST IMPORTANT differential diagnoses? List as many as appropriate.

- Alcohol (patient may fail to disclose level of drinking)
- Chronic viral hepatis
- Haemochromatosis
- Auto-immune hepatitis
- Medications (patient may fail to mention OTC or herbal medications)

QUESTION 2

What investigations would you order at this point? List as many as appropriate.

- BSL/HbA1c
- Lipids
- Fe studies
- Hepatitis B and C serology
- Autoantibodies (ANA, anti-mitochondrial antibody, anti-smooth muscle antibody) – though autoimmune hepatitis is rare in men (consider if patient not overweight)
- Upper abdominal ultrasound

QUESTION 3

Your investigations confirm a diagnosis of NAFLD. What are the most important aspects of management. List THREE.

- Assess the risk of fibrosis
- Weight loss
- Cardiovascular risk reduction

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