Alcohol-related Liver Disease
The Long and Winding Road

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Figure 1. Standardised UK mortality rate data were normalised to 100% in 1970, and subsequent trends plotted using the software Statistical Package for the Social Sciences. Data are from the WHO-HFA database. Analysed by Nick Sheron (September, 2013).
it’s the drink……

- Alcohol kills a Scot every 8 hours
- 1 in 20 of all deaths in Scotland is due to alcohol
- twice that of England
- 1 in 10 of deaths in Scots aged 35-54 is due to alcoholic liver disease.

- Enough alcohol is sold in Scotland to enable every adult to exceed safe drinking guidelines
- almost double that of England
- Britain’s consumption has doubled since 1960

- Alcohol is 70% more affordable than in 1980

Price ⇔ Consumption ⇔ Harm
- Liver Transplant
- Complications of cirrhosis
  - bleeding varices, ascites, encephalopathy
- Stable cirrhosis management
  - detection, HCC surveillance, varices screening and prophylaxis
- Detection of reversible ARLD
  - LFTs
- Prevention
  - intervention in identified heavy drinkers
- Public health measures to reduce alcohol consumption
Alcoholic Hepatitis

Diagnosis

Prognosis

Treatment

alcoholic “hepatitis” ≠ ↑ ALT

to biopsy or not to biopsy?
# Glasgow Alcoholic Hepatitis Score

> 9 = poor prognosis

<table>
<thead>
<tr>
<th>Factor</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>&lt; 50</td>
<td>≥ 50</td>
<td>—</td>
</tr>
<tr>
<td>WCC (10^9/L)</td>
<td>&lt; 15</td>
<td>≥ 15</td>
<td>—</td>
</tr>
<tr>
<td>Urea (mmol/L)</td>
<td>&lt; 5</td>
<td>≥ 5</td>
<td>—</td>
</tr>
<tr>
<td>PT ratio</td>
<td>&lt; 1.5</td>
<td>1.5-2.0</td>
<td>&gt; 2.0</td>
</tr>
<tr>
<td>Bilirubin (µmol/L)</td>
<td>&lt; 125</td>
<td>125-250</td>
<td>&gt; 250</td>
</tr>
</tbody>
</table>
Predicting prognosis in alcoholic hepatitis

28 day mortality

DF = Maddrey’s Discriminant Function
GAHS = Glasgow Alcoholic Hepatitis Score
MELD = Model of End Stage Liver Disease
STOPAH trial
steroids or pentoxifylline in alcoholic hepatitis

• UK multicentre double-blind, placebo controlled study

• 1105 patients randomised to
  – prednisolone
  – pentoxifylline
  – prednisolone + pentoxifylline
  – placebo

• Primary endpoints mortality at 28 days and 90 days.
One year survival in all groups
Prednisolone vs No Prednisolone
Kaplan-Meier Survival Curve

P = 0.056
Supportive Treatment

- early treatment of sepsis
- prevention of spontaneous bacterial peritonitis
- prevention of variceal bleeding
- terlipressin and albumin for early HRS
- nutrition
Time between referral to a liver clinic and the first admission with cirrhosis or liver failure
• Liver Transplant
• Complications of cirrhosis
  bleeding varices, ascites, encephalopathy
• Stable cirrhosis management
  detection, HCC surveillance, varices screening and prophylaxis
• Detection of reversible ARLD
  ↑LFTs
• Prevention
  intervention in identified heavy drinkers
• Public health measures to reduce alcohol consumption
2010: AASLD PRACTICE GUIDELINES  
Alcoholic Liver Disease

2012: EASL Clinical Practical Guidelines: Management of Alcoholic Liver Disease

2016: Draft Alcohol-related Liver Disease Action Plan

郤LFTs? .............  Think Alcohol!
XS Alcohol?.........  Think LFTs!
12 key recommendations including

**Knowledge**
Recommended limits on alcohol intake.

**Skills**
Be competent to make an assessment of alcohol, including taking a history and using validated tools.
- Liver Transplant
- Complications of cirrhosis
  bleeding varices, ascites, encephalopathy
- Stable cirrhosis management
  detection, HCC surveillance, varices screening and prophylaxis
- Detection of reversible ARLD
  ↑ LFTs
- Prevention
  intervention in identified heavy drinkers
- Public health measures to reduce alcohol consumption
HOW PRICES HAVE DROPPED

The price of booze has dropped dramatically over the last 30 years when taken as a proportion of the average earnings. These are the prices adjusted to take account of rises in inflation and earnings.

<table>
<thead>
<tr>
<th>1976</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tennent's Lager:</td>
<td>£1.36</td>
</tr>
<tr>
<td>Wine (average bottle):</td>
<td>£14</td>
</tr>
<tr>
<td>Famous Grouse whisky:</td>
<td>£31.12</td>
</tr>
<tr>
<td>Gordon's Gin:</td>
<td>£30</td>
</tr>
<tr>
<td>Smirnoff Vodka:</td>
<td>£29.52</td>
</tr>
<tr>
<td>Bristol Cream sherry:</td>
<td>£14.32</td>
</tr>
</tbody>
</table>

(All prices taken from leading supermarkets)

The adjusted price of a pint of beer was £2.96 compared to £2.20 today. The average person’s consumption has gone up in the same period from an average seven litres a year to 11.1 litres.

The figures take account of children so adult consumption is far higher in real terms. But the most worrying statistic is the number of alcohol-related deaths. Latest figures show 2052 Scots suffered alcohol-related deaths in 2004 – a rise of 250 per cent from the 1970s.
Alcohol affordability and alcohol-related hospital admissions, 1982-2011
<table>
<thead>
<tr>
<th>WHO ACTION AREAS- The Best Buys</th>
<th>Scottish Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership, awareness, commitment</td>
<td>National Action Plan</td>
</tr>
<tr>
<td>Health services response</td>
<td>Brief Intervention Programme</td>
</tr>
<tr>
<td></td>
<td>Investment in treatment</td>
</tr>
<tr>
<td>Community and workplace action</td>
<td>Local “Focus on Alcohol” projects</td>
</tr>
<tr>
<td>Drink driving policies</td>
<td>Reduce legal limit to 50mg %</td>
</tr>
<tr>
<td></td>
<td>Ensure enforcement</td>
</tr>
<tr>
<td>Availability of alcohol</td>
<td>Protection of public health as licensing principle</td>
</tr>
<tr>
<td>Marketing of alcoholic beverages</td>
<td>Restriction of in store displays</td>
</tr>
<tr>
<td>Pricing policies</td>
<td>Minimum unit price law.</td>
</tr>
<tr>
<td></td>
<td>Banning bulk buy discounts</td>
</tr>
<tr>
<td>Reducing negative consequences of drinking and intoxication</td>
<td>Server training compulsory</td>
</tr>
<tr>
<td>Reduce health impact of illicit alcohol</td>
<td>Not a major issue in Scotland</td>
</tr>
<tr>
<td>Monitoring and surveillance</td>
<td>Invest in monitoring/research</td>
</tr>
</tbody>
</table>
Plan for 'minimum priced' alcohol

The Scottish Government is considering imposing a minimum price for alcohol based on its strength, BBC Scotland understands.

It will be one of the measures put forward by ministers on how to tackle Scotland’s serious alcohol problem.

Increasing the age for buying drink from off-licences in Scotland from 18 to 21 is another suggestion.

Dr Evelyn Gillan, of Scottish Health Action on Alcohol Problems, said increasing price should be welcomed.

It is believed that drink-related problems cost Scottish society £2bn each year.

The government's wide-ranging package will be made public on Tuesday.
May 2012

Scottish minimum alcohol pricing passed by parliament

Scotland will become the first place in the UK to introduce minimum drink pricing, after MSPs passed new laws.

The SNP government will set the price of alcohol at 50p per unit, to tackle Scotland's historic alcohol abuse problems.

Under the plans, the cheapest bottle of wine would be £4.69 and a four-pack of lager would cost at least £3.52.

The move won broad political backing, although Labour refused to support the legislation at the Scottish Parliament.
Minimum alcohol price law challenged by Scotch Whisky Association

Whisky producers have now appealed to the Court of Session to have the minimum alcohol legislation stopped.

The Scottish government’s plan for a minimum price on alcohol has faced a renewed legal challenge.
The Legal Questions for Scottish Court of Session

Is Minimum Unit Price a proportionate action in light of the Government’s health objectives and free trade obligations? Focus on whether aim of Government is to affect all at risk drinkers or the heaviest drinkers.

Is Minimum Unit Price more effective and less trade restrictive than alternative methods, specifically, increasing taxation?

Hearings concluded June 2016
Judgement expected September 2016
Meanwhile, back at the ranch.....
Conclusions

• Despite improvements in treatment of advanced disease, alcohol-related liver disease is a major cause of preventable early death in Scotland.

• The key to further clinical improvements is early detection of reversible disease.

• Alcohol-related liver disease is highly sensitive to public health and fiscal policy change to reduce alcohol availability, e.g. minimum unit pricing.

• There is light at the end of the tunnel.