Implementation and effectiveness of hepatitis B strategy in Greenland

Karin Ladefoged
Greenland

56000 inhabitants

16 towns with small hospitals

59 settlements with health care stations

Queen Ingrid’s Hospital in Nuuk central hospital
Hepatitis related analyses

**Queen Ingrid’s Hospital**
- Liver biochemistry
- HBsAg, HBsAb,
- HBeAg, HBeAb

**Statens Serum Institut**
- Anti-HDV
- Anti-HCV
- HCV-RNA, HCV genotypes
- HBV-DNA

**Ålborg University Hospital**
- HDV-RNA
- HBV-DNA
Hepatitis B in Greenland

Hepatitis B vaccination included in childrens’ vaccination Programme 2010

6-8% of the population HBsAg positive $\approx$ 3-4000 persons*

Ideally: test the whole population and vaccinate HBsAg/HBsAb neg.

Hepatitis B in Greenland

Screening (HbsAg and HBsAb)

- Pregnancy
- Household and sexual contacts to HBsAg positive Blood donors
- Prior to chemotherapy
- Prior to immunosuppressive therapy with anti TNF or long-term steroid treatment
- HIV positive
- Elevated ALAT
HBsAg positive patients are tested for

HBeAg, HBeAb, anti-HCV, anti-HDV

HBV-DNA in case of increased ALAT

HDV-RNA in case of positive HDV antibodies
Hepatitis B in Greenland

Treatment

Indication
1. HBsAg pos. cirrhosis
2. Chronic B hepatitis with 2 of the following 3 criteria
   i. HBV-DNA > 2000 IU/ml
   ii. ALAT > UNL
   iii. Liver biopsy with inflammation > A2 and/or fibrosis > F2

Therapy: tenofovir or entecavir
Hepatitis B in Greenland

Follow-up

Untreated patients
HBsAg, HBsAb, ALAT
every 6. - 12. mo
AFP x 1 per year

Treated patients
HBsAg, HBsAb, ALAT, HBV-DNA a.o.
every 3. - 6. mo
AFP x 1 per year
Hepatitis D in Greenland

11-40% of HBsAg positive patients have positive HDV antibodies*

31 among 115 tested had **HBsAg (27%)**
Three patients fulfilled criteria for HBV treatment

**68% of HBsAg pos. had HDV antibodies** (21 patients).
Among them at least 8 should be considered for treatment of chronic D hepatitis
(increased ALAT for years. HDV-RNA (24.000-4.700.000 copies/ml):
1 under treatment, 1 previously treated for B hepatitis, 1 died, 5 patients 12-26 years.
<table>
<thead>
<tr>
<th></th>
<th>Registered</th>
<th>Indication for treatment</th>
<th>Treated</th>
<th>Responded</th>
<th>Dropped out</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hepatitis B</strong></td>
<td>14</td>
<td>7</td>
<td>2</td>
<td>?</td>
<td>1</td>
</tr>
<tr>
<td><strong>Hepatitis D</strong></td>
<td>11</td>
<td>8</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>Hepatitis C</strong></td>
<td>11</td>
<td>8</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>
Treatment of hepatitis in Greenland

**Barriers**

Scattered population, many living in small settlements with poor access to hospital facilities

Rapid turn-over of hospital staff

Lack of specialists

Blood samples for virus load need courier transportation

Compliance
Hepatitis in Greenland

*Treatment and surveillance Requirements*

Centralization/central guidance at Queen Ingrid’s Hospital

Database

Prioritizing

Commitment
Finish