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Our ref: IM/Mlls

03 June 2004

Dear Mike

I will limit myself to:-

(a) The infection related elements mentioned in your letter of the 20.04.2004,

(b) The implementation of the Imperial College recommendations related to these infections

(c) Some additional points which I believe to be relevant.

Please contact me should you have any queries.

Yours sincerely

Dr I Muscat
Consultant Microbiologist

<u>Prevalence of infection; HIV, hepatitis C and hepatitis B.</u>

Whether these infections are acquired Jersey or in other countries, their presence in Jersey is a potential

source of infection to others.

1) **HIV**

a) The cumulative prevalence of HIV to end 2003 is 84. 19 are known to have acquired the disease through intravenous drug use. 4 had multiple factors and 7 had an "unknown" route of acquisition. The overall frequency of new cases per annum is small because our population is small. It is therefore difficult to determine trends.

b) However the overall slope appears to go up. This parallels the known increase in acute sexually transmitted disease which has a similar epidemiology. Sexual transmission is the major route of HIV acquisition in Jersey and elsewhere. In contrast the annual frequency of HIV diagnosis due to IVDA acquisition has remained static or may be decreasing. This trend is also seen in the UK.

2) Hepatitis C

a) The hepatitis C cumulative diagnosis is of the order of 334 to end 2003.

b) In a survey of 208 cases in which there was enough data for retrospective analysis at least 150 acquired infection through IVDA.

In 45 of the remaining cases the source was unknown. Most such cases are now thought to be due to one-off past IVDA.

The other patients acquired infection through contaminated blood products (before screening was introduced), through injury, tattooing or sexually.

Most seemed to have acquired infection in Jersey, Portugal/Madeira or the UK.

c) Analysis of hepatitis C positive results in the laboratory shows that the number of new hepatitis C antibody cases per year ranged from 25 to 42. The number of positives as a percentage of all hepatitis C tests varied from 4% in 2000 to 2.8% in 2003.

3) **Hepatitis B** is relatively uncommon in Jersey and Northern europe with a Jersey cumulative prevalence of 28 in 1999 – 2003 inclusive. Transmission is usually sexual, or from mother to child, or through IVDA.

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Imperial College recommendations to limit the spread of HIV HCV and HBV associated with drug use.

a) This report (page 133) suggests indicators to help monitor the spread/prevalence of the blood borne viruses amongst IVDU. This includes the instigation of unlinked anonymous testing.

b) The proposed pilot study of 200 tests on 6 different groups of patients reflecting the general population and as well as IVDA and GUM patients could not be progressed. I was informed

verbally that this was because of a lack of immediate resource and a concern that increased diagnosis would require more treatment and greater expenditure.

c) In a 3 month survey by Dr Marks (see M Gafoor report) 50% of the IVDA seen were hepatitis C positive. This is similar to that seem in the UK and was what we expected.

d) In addition all individuals admitted to La Moye prison since 2000 have been offered the opportunity to be tested for blood borne viruses.

La Moye testing

2002	42 tested	16 hepatitis C positive 0 HIV positive 1 hepatitis B positive
2003	48 tested	18 hepatitis C positive 1 HIV positive 0 hepatitis B positive

To my recollection all/most hepatitis C positive inmates had acquired hepatitis C through IVDA, as had the one HIV positive. However many inmates are tattooed and some would have received blood products following trauma. (N.B. To date there have been 2 other HIV positives at La Moye – one had multiple risk factors, the other acquired infection heterosexually).

e) It should be noted that unlimited anonymous testing has been undertaken in the UK for more than a decade and I feel its local introduction should be reconsidered – in particular to also help resolve the point made below (point 1.b.ii) about whether we have a large problem or we simply manage to diagnose patients more effectively.

1) **<u>Additional comment</u>**

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a) A survey of the characteristics and management of hepatitis C patients to 2004 was reported by Sister Cally Lewis.

Data could be retrieved on 243 hepatitis C patients. Of these, 208 were eligible for inclusion of the study.

- The male to female ratio was **3: 1**.
- **165** were 20 – 40 years old; **55** were 40 – 49 years of age.
- **150** acquired hepatitis C through intravenous drug use. **45** had an unknown source – most of such cases are now considered to be due to one off past IVDA.
- Most **acquired** hepatitis C in **Jersey, Portugal/Madeira** or the **UK**.

- **95** were genotypes 1 (80/95) or 4 (these genotypes require one year of treatment and if patients complete therapy there is 50% cure rate with current therapy.

- **60** were genotypes 3 (52/60) or 2 (these genotypes require 6 months of treatment with an 88% cure rate with current therapy).

- Patients were offered treatment if they attended outpatient clinics, were definitely off intravenous drug use, did not have contraindications to therapy and were encompassed by the general principles governing the treatment of infection.

- **80** started treatment, 13 were still undergoing therapy at the time of audit and these 13 were therefore excluded from further analysis.

- Of the **67** patients who were not on ongoing therapy at the time of analysis:-

    i. **29** were cured (cure = sustained viral clearance)
    ii. **9** failed to achieve sustained viral clearance despite completing therapy
    iii. **11** discontinued therapy for medical reasons
    iv. **18** failed to comply with therapy, follow up or left Jersey.

i.e. of those **38** who completed a full course of therapy **<u>76% were cured</u>** – which is good given the genotype distribution and theoretical outcomes.

- It is important that this study reiterates that those who are stable are the most likely to complete therapy. (i.e. acquisition of hepatitis C through blood products, reformed drug users or prison inmates)

b) **Steve Harvey had recently written a report** (to be published**) on hepatitis C in pursuance of a cohesive Jersey hepatitis C strategy**. I will quote 2 excerpts:-

i. A city of Bristol health economics model concludes:– "The cost of treating hepatitis C viral infection is <u>high</u> but <u>much lower</u> than the (medical only) cost of <u>not treating the infection</u>" (i.e. treating infection is cheaper than allowing disease to progress and then treating late complications).
ii. "Hepatitis C figures in Jersey are higher than we would expect – this could be because we have a better detection rate or a bigger population or both".

c) I enclose references from Europe and the USA showing that the treatment of infection is expensive but less costly than allowing patients to deteriorate and then treating the complications of end stage disease.

2) **It should be noted that:-**

a) Infection grows exponentially. If one patient infects 2 every 24 hours that at day 10 more than 1000 will be infected. If 90% effective control mechanisms are applied earlier complete control is possible – if applied late 100 out of 1000 people will remain infected and continue to be a further source of spread of infection.

HIV outbreaks in Edinburgh, Bangkok and New York due to the lack of a needle exchange programme and monitoring of infection rates exemplify this concept in the context of IVDA.

b) Treatment of (self-inflicted) disease in the elderly caused by smoking and overindulgence is treated without hesitation. This is perfectly reasonable. IVDA affects young people. If rehabilitated they will have many productive years ahead. If complications of IVDA such as HIV and hepatitis C are prevented or treated, the ability of these patients to lead normal productive lives is further enhanced.

In my view disease in the young should be addressed with the same vigour that we apply in the elderly, even if their disease is self inflicted.

3) CONCLUSIONS

It follows that:-

a) Drug misuse should continue to be managed aggressively but constructively.

b) Related infections should be treated. We should continue with our efforts in relation to HIV and hepatitis B, but must increase our efforts in relation to hepatitis C.

c) i. We should continually monitor the prevalence of these infections (e.g. unlimited anonymous testing).

ii. The increasing burden of managing hepatitis C (both prevention and treatment) must be recognised now to help both current individuals and the future burden on the health service if the disease and its spread goes unchecked.

iii. The sponsoring of a half time hepatitis C and HIV sister for 2 years has been agreed by a drug company. The government/DOH should consider contributing to the instigation of this post (e.g. a full time post to include GUM).

4) I would be happy to discuss this report with the panel should they wish.