



## 10.1 Appendix A People Consulted During this Review

Name	Position
Alison Kincaid	CNC Sexual Health, GSAHS
Anabell Thoener	Social Worker HIV/HCV & Sexual Health, Coffs Harbour Health Campus
Andrew Roberts	Manager, Division of Medicine, Central Coast
Annabel McLisky	Psychologist, Liver Clinic, NCAHS
Anne Blunn	CNC, Canberra Hospital, ACT
Catherine Lynch	A/Director Adolescent Health, Justice Health
Chris O'Reilly	Consultant (previous HARP manager in former WSAHS)
Chrissy Little	Sexual Health nurse, Lightning Ridge
Craig Cooper	HARP Manager SSWAHS
Dr Aidan Foy	VMO providing services to Tamworth
Dr Alice Lee	Gastroenterologist, Concord Hospital
Dr Amany Zekry	Director of Hepatology, St George Hospital
Dr Brett Jones	Hepatologist, RNSH
Dr Brian Hughes	Staff Specialist, JHH
Dr Chris Carmody	Visiting Medical Officer in Sexual Health, GSAHS
Dr David Baker	General Practitioner
Dr David Whitaker	Gastroenterologist, Lismore Liver Clinic
Dr Fares Samara	GP, Durri Aboriginal Corporation Medical Service
Dr Glenn Hawker	Gastroenterologist, Gosford Hospital
Dr Greg Dore	Head, Viral Hepatitis Clinical Research Program, NCHECR
Dr Iain Bruce	Consultant Physician, Coffs Harbour Health Campus
Dr John Wenman	Consultant Physician Gastroenterologist, Coffs Harbour Health Campus
Dr Kate Burgess	GP, Aboriginal Medical Service Redfern
Dr Katherine Turner	Medical Officer, Sexual Health and Hepatitis C Service, GSAHS
Dr Leena Gupta	Director, Public Health, SSWAHS
Dr Mark Cornwell	Gastroenterologist, Lismore Liver Clinic
Dr Martin Veysey	Gastroenterologist, Gosford Hospital
Dr Martin Weltman	Gastroenterologist, Nepean Hospital
Dr Penny Abbot	GP, Aboriginal Medical Service Western Sydney
Dr Richard Hallinan	The Byrne Surgery, Redfern
Dr Robert Pickles	VMO providing services to Taree
Dr Ted O'Loughlin	Gastroenterologist, CHW
Elizabeth O'Neil	HARP manager, SWAHS
Emily Seaman	Project Officer – Information and Resources, HCCNSW
Emma Gibbs	Highly Specialised Drugs Secretariat, Australian Department of Health and Ageing
Emma Ward	Coordinator – Client Services, HCCNSW
Erol Diguisto	Senior Research Fellow, South Western Sydney Clinical School, Faculty of Medicine, UNSW
Gary Forrest	Director Population Health, Justice Health
Gary Gahan	Co-ordinator, Blood Borne Infections Prevention, SESIAHS
Graham Stone	HARP Manager, NSCCAHS

Name	Position
Helen Blacklaws	CNC, HCV service, Central Coast
James Ward	Manager of Public Health Programs, AH&MRC
Janice Pritchard-Jones	Area HCV Coordinator, SSWAHS, Inner West
Jenny Heslop	HARP Manager, NCAHS
Jo Lenton	Clinical Nurse Specialist, Sexual Health, Broken Hill, GWAHS
Julie Dixon	HARP Manager SESIAHS
Karen Nairn	HARP Manager, Hunter/New England AHS
Kate Mason	Counsellor, Viral Hepatitis, RNSH
Kay Maunsell	Pharmacist, Coffs Harbour Health Campus
Kevin Menzies	Health Education Officer, GWAHS
Kim Stewart	Associate Director, AIDB, NSW Health
Kirsty McIntyre-Smith	Hepatitis C Liaison Project Officer, GSAHS
Kristine Nilsson	Assistant Director, Highly Specialised Drugs Program, Australian Department of Health and Ageing
Mary Senech	Acting President, Australasian Hepatology Association
Mary-Anne Saba	Pharmaceutical Adviser, Highly Specialised Drugs Program, Pharmaceutical Services Branch, NSW Health
Maureen Hanly	Director Clinical and Nursing Services, Justice Health
Michael Lodge	General Manager, NUAA
Pat Bindley	CNC, HCV Clinic, Illawarra
Paul Downes	Counsellor, HCV Clinic, Central Coast
Paul Harvey	Coordinator — Information and Resources, HCCNSW
Peter Field	Roche
Professor Bob Batey	Professor of Medicine, UNSW SWS Clinical School
Professor Geoff McCaughan	Director of the AW Morrow Liver Centre, RPAH
Professor Jacob George	Director, Storr Liver Unit, Westmead Hospital
Ronda Fethers	Schering Plough
Rosie Gilliver	CNC, Viral Hepatitis service, RNSH
Sallie Cairnduff	Hep C Workforce Development Officer, AH&MRC
Sally Spruce	CNS, North Coast AHS
Sarah Judd	Sexual Health Nurse, Bourke
Scott Russell	RN, Lismore Liver Clinic
Stuart Loveday	Hepatitis C Council, NSW
Susan Holdaway	Hepatitis C Clinical Coordinator CNC, SWAHS
Tadgh McMahon	Multicultural HIV/AIDS and Hepatitis Service
Tanya Bain	Principal Program Advisor (Hepatitis C), Communicable Diseases Unit, Queensland Health
Teresa Clonan	Programs Director, HCCNSW
Tracey Jones	Nurse Practitioner, Hunter/New England AHS
Trish Bullen	Co-ordinator Communicable Diseases Surveillance and Control, GWAHS (previous HARP manager in former MAHS)
Vicki Exworth	CNC for BBVs and Manager of Sexual Health, Dubbo
Vince Fragomelli	Hepatitis C CNC, Nepean Hospital
Wendi Evans	CNC, Liver Clinic, NCAHS



## 10.2 Appendix B

### Submissions/Surveys Received

- South Eastern/Illawarra Area Health Service
- Sydney South West Area Health Service
- Northern Sydney/Central Coast Area Health Service
- Sydney West Area Health Service
- North Coast Area Health Service
- Hunter/New England Area Health Service
- Greater Southern Area Health Service
- Justice Health
- ASHM
- NUAA
- HCCNSW
- AH&MRC
- MHAHS
- Professor Darrell Crawford, on behalf of the Australian Liver Association and Gastroenterological Society of Australia
- combined submission from CHW, SCH and JHCH
- National Centre in HIV Social Research, UNSW
- Magdalena Harris, patient currently receiving HCV anti-viral treatment
- Christina Thomas, patient who has completed HCV anti-viral treatment
- Department of Ageing, Disability and Home Care (DADHC)

## 10.3 Appendix C

### Current HCV Services in AHSs

#### 10.3.1 South Eastern Sydney/Illawarra Area Health Service

##### St Vincent's Hospital

###### Services

The inpatient services for people with hepatitis C provided by STV Hospital include the management of acute and chronic hepatitis C, advanced liver disease, liver biopsy. The hospital also provides access to laboratory testing, patient education/support and case management, counselling, dental, nutrition, drug and alcohol and psychiatry services.

The hospital provides between 3 and 6 viral hepatitis clinics per week. These clinics are part of the HIV/Immunology/Infectious Diseases Services Unit. Approximately 85% of the occasions of service<sup>76</sup> per clinic are people with hepatitis C. Some clients would be co-infected with HIV as well as HCV (25–30% of the HCV service). About 20% of clients would have HBV and about half would be co-infected with HIV. The service participates in clinical trials.

There is a monthly HCV treatment support group. On average, 12 people attend each group.

###### Staffing

Staff include:

- 2 infectious diseases physicians
- 1 gastroenterologist
- 1 CNS
- 2 clinical trials coordinators
- HIV allied health staff — social worker, dietician

###### Patient numbers

There are about 60 patients on anti-viral therapy for HCV at any one time and between 80 and 90 patients who commence treatment each year. There are about 10 patients awaiting treatment for HCV with an average waiting time of 4 weeks. There are, on average, 43 occasions of service at each clinic.

Current services are at capacity because of the growth in numbers of patients seeking treatment since the removal of the liver biopsy as a mandatory requirement.

###### Links with Other Services

The Dental department provides oral health education as well as dental services. The Dietetics department provides dietary support, nutrition education and lifestyle management. The Drug and Alcohol department provides hepatitis C education and counselling and lifestyle management.

The HCV CNS provides a weekly hepatitis clinic weekly at Rankin Court, a methadone clinic in Darlinghurst. She provides screening, education, vaccination, monitoring, lifestyle management, counselling and HCV treatment. There are 12 occasions of service on average at each clinic. One of the infectious diseases physicians provides a medical clinic every fortnight.

###### Funding and Management

Funding of the HCV services at STV is from a variety of sources:

- dedicated HIV funds (because the service is part of the HIV/Immunology/ID Clinical Service)
- AHS general funding
- Medicare (via outpatient billing estimated to be \$30,000 per year)
- NHMRC Practitioner Fellowship
- Clinical trial income (estimated to be \$50,000–\$60,000 per year)
- Pharmaceutical company (Roche) — \$50,000 supports the provision of HCV nursing services

The HCV service is provided within the HIV/Immunology/ID Clinical Service with clinical support and direction from one of the infectious diseases physician.

##### St George Hospital

###### Services

STG Hospital provides inpatient services for people with hepatitis C including the management of complications related to end-stage liver disease, including hepatocellular carcinoma, management of ascites, variceal bleeding and hepatic encephalopathy, complications related to anti-viral therapy for chronic HCV infection, acute HCV infection with severe hepatic dysfunction. These patients are usually admitted to the gastroenterology ward and may need endoscopies and radiology services. Liver biopsy and ascites drainage are provided on an ambulatory basis.

There is a weekly viral hepatitis clinic for people with HCV and HBV. The clinic provides assessment, initiation of therapy and follow-up of patients on treatment. Surveillance for hepatocellular carcinoma in patients with cirrhosis occurs through the viral hepatitis clinic.

###### Patient numbers

Currently there are about 96 patients on treatment for HCV. There are between 10 and 20 patients awaiting treatment. The number of people with HBV attending the clinic has increased over the last year so that about half the patients have HBV and half have HCV. There are between 20 and 40 patients at each clinic including 3–5 new patients. In 2005/06 there were 1000 occasions of service at the clinic.

76 'An occasion of service' is the description used for a unit of service for non admitted patients in NSW public health facilities.

## Staffing

A part time VMO and 1.0 FTE hepatologist (clinical academic) and three advanced gastroenterology trainees are entirely responsible for the medical aspects of the viral hepatitis service including the entire inpatient and outpatient services.

The clinic is staffed by the hepatologist and two of the advanced trainees. The VMO hepatologist attends every fortnight for four hours. There was a CNC for HIV and HCV but this position is now vacant. There is a 0.2 FTE CNS who attends the clinic for three hours each week and also provides patient education.

The service also has a 0.6 FTE social worker (temporary position) and 0.1 FTE administration staff. One of the pharmaceutical companies funds a research assistant who collects blood, tissues etc.

## Links with Other Services

The viral hepatitis service currently has COAG project funding for two years to extend HCV treatment to patients on the methadone program. The funding provides for a 0.6 FTE CNC, a 0.8 FTE administration officer and mental health support on a fortnightly basis. The CNC employed by this project conducts HCV clinics two days a week in the methadone treatment clinic. She assesses patients for treatment and provides counselling. The hepatologist completes the medical assessment and initiates anti-viral therapy for suitable patients. Patients receive their follow-up and counselling at the methadone clinic. There are monthly meetings of staff from the Drug and Alcohol Service and the Gastroenterology/Hepatology Service to review patients.

The viral hepatitis service is currently developing an antenatal service to ensure follow-up of mothers diagnosed with HCV or HBV infection during the antenatal period.

There are close links between the viral hepatitis service and the oncology services and the Sexual Health clinic for screening and referral of patients infected with HCV.

Recent census data indicate that 40% of the population in the St George area is from a non-English speaking background. The viral hepatitis service is currently undertaking a detailed research project aimed at identifying barriers to treatment for HCV and HBV among the migrant population. It is collaborating with GPs in the St George and Sutherland areas and the Multicultural service to undertake this project. The project is funded by ROCHE pharmaceutical through an award (PILAR award) at the value of \$25,000.

Staff from the Multicultural unit attend the viral hepatitis clinic every week. This staff is of Asian background and have been instrumental in providing a counselling service to Asian clients. The Interpreter Service in the hospital is also used for non-English speaking clients.

## Funding and Management

The funding for the viral hepatitis service comes via the Department of Immunology and Infectious Diseases. However the medical aspects of the clinical service, both inpatient and outpatient services, are entirely delivered by the Gastroenterology/Hepatology department. Due to the present funding arrangements, the nursing staff supporting the service are shared between Immunology and Gastroenterology/Hepatology. As such there is no clear delineation of the role of these nurses in the provision of viral hepatitis services versus that of the immunology and infectious diseases services.

Funding comes from a number of different sources — HIV and Related Programs budget, general AHS budget, Australian government, drug company — and much of it is short term and/or temporary. The service is already at its limits with the current workload and will not be able to cope with an increase in patient numbers without reform of the present management structure and an increase in recurrent funding and staffing. The main priorities for service enhancement are:

- structured and dedicated nursing support
- mental health support

## Prince of Wales Hospital

### Services

Inpatient services for people with HCV who are being treated for liver disease including ascites, variceal bleeding, decompensated liver disease, liver cancer for example, are provided in the gastroenterology/liver beds in POW Hospital.

There is a daily (Monday to Friday) gastroenterology clinic and approximately 30% of patients would have HCV. These clinics provide assessment, diagnosis, endoscopy and treatment for these people. The clinics are provided by a consultant (Director of the GI and Liver unit) and three registrars.

There is also a daily (Monday to Friday) nurse clinic which is a dedicated HCV clinic. Patients with HBV also attend as well as those with liver cancer and HIV/HCV co-infection. Most (90%) of cases would require HCV related care. There are approximately 75 patients per month in total with each patient receiving 4–5 occasions of service per visit.

Patients can be referred to a psychologist at Albion Street Centre; to a psychiatrist at one of their weekly clinics at POW; to a nutritionist at their weekly clinic at POW.

### Patient numbers

Usually around 40–50 patients are receiving anti-viral therapy for HCV at any one time. There are currently at least 10 people awaiting anti-viral treatment.

There would be around 30 patients with HCV attending the medical gastroenterology clinics each week, each requiring an average of 3 occasions of service each.

Approximately 75 patients would attend the nurse clinic each month and they would receive 4-5 occasions of service each visit.

### Staffing

The HCV service dedicated staff consists of 1.0 FTE CNS. The gastroenterologists and the gastroenterology registrars provide the medical care for people with HCV as part of the larger gastroenterology service. Referrals are made to psychologists, psychiatrists, nutritionists.

### Links with Other Services

The HCV service has links to allied health services — psychology at Albion Street Centre, liaison psychiatry at POW and dietetics at POW. Referrals are also made to Drug and Alcohol for screening of substance use prior to anti-viral therapy; to Dermatology for the monitoring and treating of interferon-related dermatological effects; to Cardiology for a pre-treatment ECG assessment; and to the Eye Clinic for pre-treatment assessment (and during treatment if necessary).

### Funding and Management

The HCV service is in the Gastroenterology Department and is coordinated by the CNS who organises specialised clinics and referrals. Funding for this position is from the HIV and Related Programs budget.

### Illawarra

#### Services

Inpatient services for people with liver disease are provided in Wollongong Hospital and Shoalhaven Hospital.

There is a daily (Monday- Friday) gastroenterology clinic, to which people with HCV can attend. The clinics are provided by five staff specialist gastroenterologists, two gastroenterology registrars and the CNS. Once a fortnight the CNS from Wollongong provides a clinic at the Shoalhaven Hospital together with an infectious diseases physician from the Shoalhaven Hospital. An additional part time nurse is about to be employed so that there will be a weekly clinic at the Shoalhaven Hospital.

#### Patient numbers

There are 43 patients currently on anti-viral therapy in Wollongong and 8 in the Shoalhaven. In Wollongong, numbers seeking treatment have doubled since the requirement for a liver biopsy has been removed. There are approximately 8 people awaiting treatment at the present time. In the Shoalhaven currently there are 16 people waiting for treatment. It is estimated that they will have to wait 6 months or more.

### Staffing

There are five staff specialist gastroenterologists and 2 gastroenterology trainees at Wollongong Hospital who provide treatment for people with HCV. There is one infectious diseases physician at Shoalhaven Hospital. There is 0.8 FTE CNS who coordinates and provides the treatment and care of people with HCV on anti-viral

treatment. There is no dedicated allied health staff for people with HCV so patients are referred to the social work department and nutrition department at Wollongong Hospital if these services are needed.

Access to mental health services in the Shoalhaven is a real problem. Delays in accessing mental health expertise means there is an increased risk that some patients will discontinue therapy.

### Links with Other Services

Referrals to the HCV service are received from the Drug and Alcohol Service, Mental Health Service and the Sexual Health Service. No formal relationship has been developed between these services and the HCV clinic i.e. regular joint meetings etc. due to time constraints on the HCV staff specialists and CNS.

Between 20 and 30% of patients on treatment in Wollongong have a culturally and linguistically diverse background, so interpreters are used at the clinic. The Shoalhaven has a large Aboriginal and Torres Strait Islander population but only one Aboriginal person has received treatment and they discontinued after 12 weeks.

### Funding and Management

The 0.8 FTE CNS position is funded by general Area funds and is in the Gastroenterology department of Wollongong Hospital.

### Kirketon Road Centre

#### Services

Located in Sydney's Kings Cross, the Kirketon Road Centre (KRC) is involved in the prevention, treatment and care of HIV/AIDS and other sexually transmitted and blood borne infections among 'at risk' youth, sex workers and people who inject drugs. KRC provides medical, nursing, counselling and social welfare services. KRC also operates comprehensive needle/syringe, outreach and methadone access programs.

In relation to people with HCV, KRC provides primary health care, screening, pre- and post-test counselling, assessment for HCV treatment, referral for HCV treatment, counselling/psychosocial support and assistance regarding HCV related issues such as drug dependence, concurrent alcohol use, diet/nutrition, income, accommodation, legal, education/training, discrimination/stigmatisation. The daily clinics at the KRC also provide HAV and HBV vaccination.

There is a staff specialist s100 prescriber and a CMO s100 prescriber who prescribe, review and monitor clients undergoing HCV treatment. They also provide ongoing monitoring of liver function of clients with HCV infection during, before and after treatment.

There is a specialist HCV clinic once a month provided by an infectious diseases physician where clients are assessed for treatment, their liver function monitored and their treatment initiated and reviewed.

Staff of the Needle Syringe Program (NSP) provide counselling around HCV prevention, diagnosis, monitoring, treatment and prognosis. Clients on the KRC methadone access program are able to be reminded of when HCV monitoring blood tests are required as well as their HCV clinic appointments. Their HCV treatment may be given in combination with their daily methadone.

### Patient numbers

Currently 4 clients are receiving treatment for HCV at KRC. There are no clients currently waiting for treatment but there are a substantial number of clients who may potentially wish to access HCV treatment. With the removal of the requirement for liver biopsy, there has been increased interest in treatment by clients with HCV.

### Staffing

Medical, nursing and counselling staff of the KRC provide the screening, counselling, assessment and monitoring of people with HCV. There is also an Aboriginal Health Education Officer (HEO) who provides leadership for community development and education initiatives to increase awareness of Aboriginal-specific issues in relation to HIV, other STIs and illicit drugs.

An infectious diseases physician visits once a month to provide a specialist HCV clinic. There are two s100 prescribers at KRC who are involved in the on-going treatment and monitoring of HCV clients.

### Links with Other Services

KRC has strong links with K2, another NSP in Kings Cross and clients from K2 are referred to KRC, including its HCV clinic. Also KRC refers clients to HIV, HCV and Mental Health Service (H2M), a service which provides primary care services (including GPs) with access to mental health assessments for people infected with HIV or HCV.

### Funding and Management

Most funding for HCV services at KRC is from Area general funds. The monthly specialist clinic is funded by the National Centre in HIV Epidemiology and Clinical Research (NCHECR).

### Albion Street Centre

Services provided by Albion Street Centre (ASC) for people with HCV include:

- pre-test counselling
- post test counselling and support around adjustment to diagnosis
- pre-treatment psychological and social assessment
- psychological support in preparation for, and during treatment
- some ad hoc prevention education in the context of ongoing work with clients
- psychological treatment and support for clients co-infected with HIV and HCV

ASC is primarily an HIV and Sexual Health Service and the psychologists are restricted to seeing HCV-positive people with specific issues around diagnosis and treatment. It does not provide general mental health care for people with HCV. Nor does it provide specialist AOD services.

## 10.3.2 Sydney South West Area Health Service

### Royal Prince Alfred Hospital

#### Services

There is a daily ambulatory care service for patients with hepatitis C through the A.W Morrow GE/Liver Centre. Four outreach clinics are provided to private and public methadone clinics.

RPAH is the only liver transplant centre in NSW. Consequently a disproportionate number of patients with HCV cirrhosis and liver failure are referred there. Each year 20–25 patients receive a liver transplant and 100 liver cancers per year are treated, 50% of whom are HCV positive. (The total number of HCV liver cancers treated since 2000 is 225). These patients require considerable input from medical, nursing and allied health services. Many are inpatients whilst other are managed on an ambulatory basis with frequent visits. Anti-viral treatment in these patients requires very careful monitoring and use of therapies to support cytopenias. These include Erythropoietin and Granulocyte Colony-Stimulating Factor (G-CSF). These support therapies usually require special funding. Anti-viral therapy is also required following liver transplant. These patients have similar issues as those with advanced liver disease.

Another issue in HCV treatment and care for advanced liver disease is that of Hepatocellular Cancer (HCC). A large number of patients who require local therapies such as Transarterial chemoembolization (TACE) or Radiofrequency Ablation (RFA) as well as liver resection or transplantation are referred from other Area Health Services. These referrals place considerable strain on ambulatory and inpatient nursing, medical and radiological services. The Liver Cancer Nurses case manage 30-60 patients per month. There is a single weekly meeting solely devoted to this issue to design individual therapies for each patient.

#### Patient numbers

Each year approximately 80–90 patients are treated with anti-viral therapy and 120–130 patients are assessed. The estimated occasions of service for staff is as follows:

- |                                       |      |
|---------------------------------------|------|
| ■ Staff Specialists                   | 1700 |
| ■ HCV CNC:                            | 1600 |
| ■ Hepatology/Liver Transplant CNC/RN: | 900  |

The HCV outreach clinics see 40–60 clients per month. More than 12 clients have commenced anti-viral therapy. They receive their therapy from RPA Hospital.

RPA sees a large number of patients with cirrhosis and/or other complications. The number of patients who are undergoing anti-viral therapy with these conditions has increased significantly now that s100 anti-viral therapy is available for people with cirrhosis. These patients require much closer monitoring and more frequent visits.

Between 20 and 25 patients with HCV receive a liver transplant and approximately 50 cases of liver cancer are related to HCV.

### Staffing

Dedicated HCV positions include:

- 1.0 FTE HCV CNC
- 1.0 FTE HCV RN
- 0.7 FTE liver cancer RN
- 0.5 FTE psychologist
- 0.6 FTE social worker

### Links with Other Services

The staff of the AW Morrow GE/Liver Centre are the primary managers of patients with HCV. Strong partnerships have been developed with other services — Radiology, Endocrinology, Drug Health, Psychiatry and Health Promotion. The AW Morrow GE/Liver Centre provides education to GPs and other health care workers with seminars and clinical placements. Non-recurrent Hepatitis C Education & Prevention initiative funded programs exist in the inner-west and south west of SSWAHS. The inner-west project aims to work with private and public pharmacotherapy services to increase levels of knowledge concerning hepatitis C and increase referral and entry into treatment at these services or from services at RPAH.

The HCV nurses attend a weekly clinic at three private methadone clinics — Summer Hill, Enmore and Central Station. This role is funded by one of the drug companies. The Director of Drug Health, a gastroenterologist, provides a monthly clinic at Clinic 36 at Central Station, where he provides anti-viral treatment. An HCV nurse also attends the public methadone clinic at RPA once a week to assess patients and refer for treatment.

The Sexual Health Service provides HCV testing and treatment as well as HCV case management including counselling and referral.

### Funding and Management

Funding is derived from a variety of sources:

- HIV and Related Programs budget
- general Area funding
- pharmaceutical industry contributions — direct financing of nursing positions and clinical trial income
- Medicare

## Concord Hospital and Canterbury Hospital

### Services

At Concord Hospital there is an outpatient liver clinic three times a week to which people with HCV can attend for assessment, pre- and post-test counselling and anti-viral therapy. Each clinic is staffed by a staff specialist gastroenterologist and a gastroenterology registrar, a CNS and a clinical trials coordinator.

At Canterbury Hospital there is a weekly HCV clinic staffed by two staff specialist gastroenterologist (including one from Concord). This service is just being established and the plan is for one of the CNCs from RPA Hospital to assist.

### Patient numbers

At Concord there are about 70–80 patients on anti-viral treatment each year. This year 50–60 patients had already begun treatment by the middle of the year. Approximately one third of patients previously injected drugs while two thirds are overseas migrants with medically acquired HCV.

There are only half the numbers of patients on anti-viral treatment at Canterbury Hospital but these patients are more complex because they are sicker, more disadvantaged, and more likely to have advanced liver disease. One-third of them require an interpreter. Two thirds of these patients are ex or current people who inject drugs.

### Staffing

The three weekly liver clinics at Concord Hospital are each staffed by a gastroenterologist and a gastroenterology registrar. The staff specialist gastroenterologist for whom 70–80% of her work is HCV, only works at Concord Hospital for 12 hours, i.e. 0.3 FTE, per week. She provides one of the liver clinics and also provides the clinic at Canterbury. Another staff specialist gastroenterologist from the hospital provides a clinic. The third clinic is staffed by a private gastroenterologist, who does not receive payment for the time he spends providing the clinic.

The only dedicated HCV nursing staff are:

- 1.0 FTE CNS
- a clinical trials coordinator

A psychologist visits once a month from RPA Hospital.

An enhancement grant has just been received to appoint a nurse full time who would work at both Concord and Canterbury Hospitals. This is a temporary position for 12 months only.

### Links with Other Services

With the extra nurse position, there is a plan to provide a drop-in HCV clinic at the methadone clinic at Canterbury Hospital. There is also a need to follow-up antenatal clients with HBV. The limited medical staff means that there is no time to provide GP education which is seen as a priority.

## Funding and Management

The 0.3 FTE staff specialist gastroenterologist and the CNS used to be funded by one of the drug companies. Now both positions are funded by the hospital. The clinical trials coordinator position is funded from clinical trials' income. All these positions are managed within the Gastroenterology Department of Concord Hospital.

## Liverpool, Bankstown and Campbelltown Hospitals

### Services

Inpatient services are provided for patients with advanced liver disease at both hospitals.

Liverpool Hospital has a gastroenterology clinic all day on Wednesday for half a day on Thursday and there is a viral hepatitis treatment clinic on Friday morning. Patients with HCV represent between 10 and 20% of the gastroenterology clinics and about 50% of the viral hepatitis clinic (the other 50% have hepatitis B). Patients have access to liaison psychiatry.

Bankstown Hospital has a VMO clinic twice a month and a part time nurse clinic two days per week. Bankstown Hospital clinic is staffed by a clinical academic for three of the weekly clinics per month.

### Patient numbers

Liverpool and Bankstown treat about 100 patients per year with anti-viral therapy. Another 30 patients are treated at Bigge Park Centre at Liverpool. Another 15 patients are treated privately in the western sector. An audit of the last 150 cases treated at Liverpool showed that about a quarter of patients require an interpreter and 15% have cirrhotic/advanced fibrosis. The waiting time for treatment currently at Liverpool is about 6 months.

### Staffing

Liverpool Hospital is staffed by:

- CNC 2 (1.0 FTE)
- RN (1.6 FTE)
- CNS (1 FTE)
- Social Work (0.6 FTE)

Bankstown Hospital's staff profile is:

- CNC (1 FTE)
- RN (0.6 FTE)

These positions at Bankstown Hospital are undergoing recruitment and in the interim serviced by Liverpool Hospital staff

Liverpool Hospital's Wednesday gastroenterology clinic is staffed by three staff specialists and a registrar. The Thursday gastroenterology clinic and Friday viral hepatitis clinic are staffed by one staff specialist and a registrar.

## Links with Other Services

Drug Health Services — Needle Syringe Programs provide health promotion and are an access point to treatment and care services.

The Hepatitis C Education & Prevention initiative funded project in the south-west aims to increase health worker and the level of community knowledge regarding hepatitis C, with particular emphasis on General Practitioner education and participation in treatment and care.

Ancillary services are provided by Social Workers, Dieticians, Clinical Psychologists and Psychiatrists, Palliative Care Staff Specialists based in SSWAHS Hospitals and Mental Health Services for people infected with hepatitis C or receiving treatment as a result of the hepatitis C infection.

## Funding and Management

There is a Director of Hepatology in the south west of Sydney South West Area Health Service who is responsible for coordinating services across Bankstown and Liverpool Hospitals. A treatment clinic is needed at Campbelltown but can only commence if nursing staff numbers are increased.

Funding comes from the Hepatitis C allocation within the HIV and Related Programs budget plus a small additional amount for one temporary nurse at one of the hospitals from general Area funds. An additional temporary nurse position providing HCV treatment and care is funded by money obtained from hepatitis drug trials. Medical staff bill Medicare for outpatient consultations.

## 10.3.3 Sydney West Area Health Service

### Eastern cluster

#### Services

Westmead Hospital is a major treatment centre for people with HCV. It provides inpatient services for people with advanced liver disease and at any one time there are, on average, six patients in hospital with liver disease. Four of these six patients' liver disease would be HCV related.

There are two clinics a week to which people with HCV attend: a Liver Clinic every Thursday afternoon and an Interferon clinic every Monday afternoon. The Liver clinic is for any patients with any liver conditions — non-alcoholic steatohepatitis (NASH), HBV, HCV, abnormal liver function tests, HCC, haemochromatosis and cirrhosis. The clinic is for follow-up and monitoring including blood tests, ultrasound, CT scanning. At this clinic a psychologist provides pre-treatment assessments. The Interferon clinic is for HBV and HCV patients on anti-viral treatment including those on clinical trials and those receiving compassionate treatment. Blood is collected for testing and a patient can receive an ultrasound or CT scan if required. The psychologist provides follow-up appointments.

A nurse clinic is conducted on an as needed basis at Blacktown Hospital in conjunction with local private gastroenterologists who need to start patients on therapy. There are plans to commence an HCV treatment clinic at Blacktown Hospital with an infectious diseases physician in October 2007.

Plans are underway to begin treatment clinics at the Centre for Addiction Medicine (CAM) at Cumberland Hospital campus in North Parramatta, to provide treatment assessment and initiation, and to begin patients on anti-HCV therapy. These clinics will operate once each month, and will be staffed by a gastroenterologist Consultant, a HCV CNC, an RN and an EN from the centre. If CAM is either closed or relocated, there will be no capacity to offer this new clinic. There are about 75 patients who have been assessed and ready to commence treatment when the clinic begins.

A patient information night is provided six-monthly by the Area HCV CNC, Storr Liver Unit CNS and the coordinator from TRAIDS, a statewide service located in Sydney West, Eastern zone.

The Area CNC, the Nepean CNC and the TRAIDS coordinator also provide a two-hour in-service education session every quarter for staff including Storr Liver unit staff, D&A staff, Justice Health staff, University clinic, ward staff, NSP staff, youth workers, SWSAHS staff.

### Patient numbers

Currently between 150 and 200 people are treated with anti-viral therapy at Westmead per year. There are 30 patients waiting to participate in a clinical trial. Four or five patients are waiting for a liver biopsy. There is a 6–8 week wait for referral to the Liver clinic.

Two thirds of all the patients who attend the Interferon clinic are from a culturally and linguistically diverse background. Fifty five percent of patients have HCV and 45% have HBV. All the HBV patients come from outside Australia. Together with TRAIDS and the pharmaceutical companies, the viral hepatitis service is targeting GPs who see patients from particular ethnic communities such as the Arabic community and the Sudanese community, to educate them about treatment for hepatitis (HBV in particular).

The western cluster is currently investigating how best to work with the ACCHS to provide hepatitis treatment services for Aboriginal and Torres Strait Islander peoples.

### Staffing

Inpatients are admitted into the gastroenterology/liver beds at Westmead.

The Thursday liver clinic is provided by:

- HCV CNS or HCV CNC
- 3 consultants
- 3 registrars
- 1 RMO
- 1 intern
- psychologist (from TRAIDS)

The Monday interferon clinic is provided by:

- HCV CNC
- HCV CNS
- clinical trials coordinator
- clinical trials nurse
- technical officer
- 2 consultants
- 3 registrars
- psychologist (from TRAIDS)

### Links with Other Services

The Storr Liver unit has strong links with the Centre for Addiction Medicine (CAM) and is planning to provide a treatment clinic there. Currently the CAM provides HCV and HBV testing, HBV vaccination, and monitoring of liver function tests.

The Sexual Health clinic in the eastern cluster provides pre- and post-test counselling for people with hepatitis and HBV vaccination.

The NSP provides health promotion about HCV and the Blacktown/Mt Druitt NSP is trying to start a primary health care service.

### Funding and Management

The Storr Liver unit staff coordinates and manages services for people with HCV. Funding is from a range of sources:

- HIV and Related Programs budget
- General Area budget
- D&A budget
- Medicare
- pharmaceutical companies

### Western cluster

#### Services

Nepean Hospital and Blue Mountains Hospital provide inpatient services for the management of chronic liver disease, referral for liver transplant, management of symptomatic acute HCV.

Nepean provides a comprehensive range of ambulatory services including assessment, determining suitability of patients for treatment, referral to psychological services, clinical trials and other research. Nepean provides medical assessment for patients, liver biopsies, education for staff and patients and liaison with D&A and methadone services. The service works closely with Westmead Hospital in the provision of HCV services.

Nepean Hospital has two gastroenterology clinics per week which people with HCV and HBV can attend and there is a nursing clinic three days a week provided by the HCV CNC and part time HCV RN. The HCV CNC also conducts two nursing clinics at other hospitals: one twice monthly at Blue Mountains Hospital and one monthly at Lithgow Hospital.

The medical staff assess patients, undertake liver biopsy, commence treatment, monitor and follow-up patients. The nursing staff provide pre and post test counselling, treatment follow-up, monitoring of patients (who may be on or off anti-viral treatment). The nursing staff also run a HCV support group, provide education for staff and patients and refer patients to drug and alcohol, dietetics, social work and psychiatry services as required.

### Patient numbers

Between 70 and 80 patients are treated with anti-viral therapy per annum. About 120 patients are assessed for treatment or are being monitored each year. There is not a significant waiting time to see the CNC. There is a 6–8 week wait to see the gastroenterologist.

### Staffing

The viral hepatitis service staff includes:

- 3 VMOs (gastroenterologists)
- 2 staff specialist gastroenterologists
- 2 gastroenterology registrars
- 1.0 FTE CNC
- 0.4 FTE RN

### Links with Other Services

There are strong links between the viral hepatitis service and the D&A service because the Director of Gastroenterology at Nepean is also the Area Director of D&A services. Referrals to the viral hepatitis service are received from the D&A service and vice versa and there is close liaison between the two services. Currently there are HCV treatment clinics within the Methadone Clinics at Nepean, Blue Mountains and Lithgow. Inpatient consultations occur within the Detox Unit on a referral basis. Presently no formal psychology support is available within HCV services; however, the provision of some part time psychology service would enhance the service delivery and patient care. Further funds to increase the Hepatitis C RN position to full time would also facilitate an enhancement of these services.

Referrals are also received from the Sexual Health Service. The viral hepatitis service refers patients to social work, dietetics, counselling and psychiatry services.

### Funding and Management

Funding comes from a number of sources:

- D&A budget
- hepatitis C allocation within the HIV and Related Programs budget
- pharmaceutical company
- Medicare

## 10.3.4 Northern Sydney/Central Coast Area Health Service

### Northern Sydney

#### Services

Royal North Shore (RNS) Hospital provides inpatient services for people with liver disease including decompensated cirrhosis, variceal bleeding, liver failure, liver cancer management.

There are two medical and three nursing viral hepatitis/liver diseases clinics a week which provide assessment, monitoring and treatment. Patients with HBV and HCV attend these clinics — but the majority (about 70%) of patients have HCV.

The staff specialist hepatologist also provides five assessment and treatment clinics a month at the Northern Specialist Clinic — the private specialist consulting rooms attached to RNS. There are no people on treatment for HCV at the Northern Specialist Clinic. If someone is to receive treatment, they are sent to the public clinic. There are four endoscopy clinics a month to assess and treat complications of liver disease.

The viral hepatitis staff provide telephone consultations throughout the week including general liver clinic queries and provision of support and information for clients with HCV.

The viral hepatitis CNC and social worker provide two HCV support groups a month. The CNC provides in-service training for other health care workers and outside organisations. She facilitates a BBV education group at Herbert Street Detox unit on a weekly basis and a quarterly education session at two methadone treatment services — Herbert St and Sydney Rd.

The Sexual Health clinic provides HCV testing as part of routine screening.

#### Patient numbers

Last year 66 patients were treated with anti-viral therapy for HCV. There are between 25 and 30 patients receiving treatment at any one time. There are 12 patients in the post treatment phase and 10–15 in the pre-treatment phase. Another 14 patients are waiting to go on combination therapy but this wait is often due to personal issues and is not necessarily imposed by the clinic. There are around 20 patients at both the viral hepatitis and liver clinics each week and 8 patients at each of the three nursing clinics per week. The nursing and counselling staff would make approximately 50 phone calls either to patients, or to others on their behalf, each week.

There are no Aboriginal clients who attend the viral hepatitis/liver clinics. There is however a large South East Asian population. Of the 15–20 clients who attend the liver clinic each week, 3 would need an interpreter. The nationalities of the patients on treatment include Vietnamese, Chinese, Japanese, Korean.

There are about 40 patients treated for advanced liver disease a year.

### Staffing

Staff of the viral hepatitis service funded by the Division of Medicine include:

- 1 FTE staff specialist hepatologist
- 2 FTE gastroenterology registrars on rotation

Staff of the viral hepatitis service funded by HIV & Related Programs include:

- 1 VMO gastroenterologists (5 hours per week)
- 0.8 FTE CNC
- 0.2 FTE CNS
- 0.6 FTE RN
- 0.5 FTE social worker
- 0.5 FTE admin
- psychiatry registrar — 6 hours per week — shared by HIV, SH and HCV

### Links with Other Services

Key services which the viral hepatitis service refers to or receives referrals from include:

- mental health especially the community mental health team
- Assertive Recovery in the Community team
- AOD services — there used to be an agreement between the HCV service and AOD services to provide meet every 1–2 months to discuss common clients. Also the CNC conducted some education sessions in the AOD waiting room. This agreement has broken down in recent times.
- Sexual Health
- liaison psychiatry

There has been little interest in shared care by GPs.

### Funding and Management

The HCV service conducts its clinics in Clinic 16 where the HIV/Sexual Health Service is located. The nursing and counselling staff are operationally managed within the Clinic 16 structure. The medical staff are part of the Gastroenterology Department of RNS Hospital. The day to day operation of the liver clinic and the viral hepatitis treatment clinic is coordinated by the CNC.

Funding for the viral hepatitis service comes from:

- Division of Medicine, RNS
- HIV and Related Programs budget

## Central Coast

### Services

Gosford Hospital provides inpatient management of end stage liver disease and there are usually 5 or 6 patients in hospital at any time.

There are four medical outpatient clinics where patients are assessed, monitored and treatment is initiated. Patients with HCV on treatment are referred to the all day Friday nursing clinic. The social worker is present at that clinic also.

The nurses and social worker also run a HCV treatment clinic at Wyong Hospital once a week alongside the methadone clinic.

### Patient numbers

Currently there are 30–40 patients on anti-viral therapy but numbers have been as high as 50.

### Staffing

- 1 staff specialist gastroenterologist
- 1 clinical academic
- 1.0 FTE CNC
- 0.6 FTE RN
- 0.4 FTE social worker
- 0.3 administration officer

### Links with Other Services

The HCV service used to provide its Friday clinic on the premises of the Sexual Health service. Now it provides its service in the outpatients clinic area. It has close links with the AOD service and the NSP program. The AOD service screens, tests and refers patients who they believe are suitable for treatment. The weekly HCV clinic at Wyong Hospital is provided in the AOD service. The HCV service tried to develop shared care with GPs but there was no interest.

### Funding and Management

The current budget comes from General Area funds. It does not cover the current nursing, social worker and administration officer costs. There is a shortfall of \$60,000 – \$80,000 as a result of the withdrawal of funding from one of the pharmaceutical companies. The staff of the service believe that the current budget of \$100,000 – \$115,000 needs to be doubled so that there are two full time nurses and a full time social worker and the administration officer position is increased from 0.3 to 0.5 FTE. This would allow positions to be backfilled when staff are on leave.

The service is within the Division of Medicine of the Central Coast sector.

## 10.3.5 Hunter/New England Area Health Service

### John Hunter and Taree

#### Services

Inpatient services for HCV related problems are provided at John Hunter Hospital (JHH) in the gastroenterology beds.

There are four nursing clinics a week at JHH:

- a pre-assessment clinic
- a liver treatment clinic
- a clinical trial clinic
- a treatment initiation clinic

Also at JHH there are five medical specialist clinics and two psycho-social assessment clinics a week.

At Taree a staff specialist from the Immunology and Infectious Diseases Department of JHH visits once a month. There is a part time CNS who provides HCV testing, assessment and information at the Sexual Health clinic. HCV pre-assessment for treatment, specific treatment related information, treatment monitoring and management occurs within infectious diseases clinic. Patients suitable for Clinical Trials are referred to relevant staff at JHH. Psychological assessment and monitoring occurs utilising local private providers.

At Tamworth a VMO visits monthly from the Gastroenterology Department of the Mater Hospital. In addition the CNC has a weekly clinic.

The nurse practitioner conducts education programs for health care workers throughout the Hunter/New England Area, non-government organisations and liaises closely with the Hunter Urban Division of General Practice. She also provides resources and peer support to the Tamworth and Taree clinics.

At Taree the CNS provides education to the local health care worker and the practice nurses in GP settings and works with the Division of General Practice to provide GP education. She distributes HCV related information and resources to other local services — D&A, NSP, Mental Health, community health centres.

#### Patient numbers

At JHH 120 patients are currently on anti-viral therapy. Another 50 patients are on a waiting list for treatment. At the Taree and Forster clinics 20 patients are being actively managed on treatment or are in the 'follow-up' period. There are 15 patients who are currently being 'worked up' for treatment. The Tamworth clinic has approximately 15 patients on treatment at a time, with approximately 20 patients treated in a year. There are currently 22 people on the treatment waiting list.

#### Staffing

Dedicated HCV staff includes:

- 0.8 FTE nurse practitioner
- 1.0 FTE clinical trials coordinator
- 0.8 FTE treatment education nurse
- 1.0 FTE social worker
- 0.6 FTE administration officer

At Taree there is a 0.5 CNS for HCV at the Sexual Health Service. Psychological assessment is via the local private clinical psychologists and/or the accredited counsellor at the Sexual Health Service.

At Tamworth there is 1.0 FTE CNC. There is limited access to allied health services. Psycho social services for clients on treatment are provided by two Social Workers employed by the Tamworth Base Hospital, negotiated on an as-needs basis through the CNC. State-wide HCV telephone support lines are also utilised by the patients.

#### Links with Other Services

The HCV service has strong links with the Sexual Health Service, the D&A service, the NSP and the mental health services. Five GPs in the Hunter trained as HCV s100 prescribers but none have gone on to perform as prescribers. The reasons include insufficient financial incentives and limited support in terms of access to CNCs and psycho-social services.

The specialist who visits Taree is positive about the GPs involvement in HCV treatment there. Three participated in the prescribing trial, but none have prescribed so far. Their reasons include their belief that it is too complicated, small patient numbers.

There are four known GP S100 prescribers in the New England area — two in Tamworth and two in Armidale, however none have yet prescribed. Reasons include that there are no formal arrangements or protocols in place for GPs and the visiting specialist to work together, none have been requested to prescribe for a patient yet, and the hepatitis C clinic appears to them to be able to keep up with the current level of demand.

#### Funding and Management

Funding comes from a range of sources:

- general Area funds
- HIV and Related Programs funds
- pharmaceutical companies
- Medicare

## 10.3.6 North Coast Area Health Service

### Lismore

#### Services

Lismore Base Hospital provides inpatient services for patients at all stages of liver disease. The hospital is able to provide liver biopsies, endoscopies, gastroscopies.

There is a dedicated liver clinic that operates every day from Monday to Friday in the Lismore CBD. When the service was being established there was no space in Lismore Base Hospital, Bangalow CHC, Ballina Hospital or Byron Hospital so the clinic is co-located with a non-government organisation, The Lismore Family Planning Service, with whom they have a five year contract. One of 5 Gastroenterologists from the private practice, on a rotating roster, works as a staff specialist for four hours per week at the clinic, every week. There is also a GP with an interest in HCV who works four hours a week. There is an outreach clinic in one of the GP practices in Byron Bay once a week. There is a specialist medical clinic in Byron once a month. A clinic is held in Ballina on an ad hoc basis.

The clinic provides education, assessment, counselling, treatment, monitoring, and post treatment follow-up for people with HCV and HBV, cirrhotic surveillance for HCV and HBV, drug trials, monthly support group, family visits. The staff also provide community education, GP education, specialist education including at least four case review sessions for specialists with a visiting professor from Sydney or Brisbane.

The gastroenterologists' private practice also treats patients privately. Sometimes the liver clinic nurses provide consultations to patients in the doctors' private rooms.

The Sexual Health Service provides HCV testing, pre and post test counselling, referral, education, harm minimisation and information. The NSP provides harm minimisation, education, referral, information and HAV and HBV vaccination. The D&A services provide information, referral and harm minimisation.

#### Patient numbers

Last year 86 patients were given anti-viral therapy. This year there are currently over 100 patients on treatment. (When private patients are included there are probably around 130 patients on treatment). There are between 30 and 40 patients waiting for treatment and the waiting time is four to six months.

#### Staffing

Staff of the liver clinic are:

- staff specialist — 4 hours per week
- GP — four hours per week
- 1.0 FTE CNC
- 0.4 FTE CNS
- 0.5 FTE receptionist
- sessional psychologist

#### Links with Other Services

The Liver Clinic staff have a good relationship with nurses and doctors on the wards of the Lismore Base Hospital. The ward staff often call the clinic for advice on interpretation of tests, for referral and/or for counselling or education of inpatients. The Endoscopy service does liver biopsies, endoscopies, gastroscopies.

The Liver Clinic often has patients in common with the Sexual Health Service. Staff have joint case management and education sessions. Liver Clinic patients may be admitted to the detox unit while waiting/preparing for treatment. Some of the non-government organisations — The Buttery D&A Rehabilitation Centre, Intra, Youth Programs and Living Skills/Mental Health housing programs provide services such as outpatient D&A, gambling assessments and counselling.

There is a plan for the CNS to rotate through all the NSP outlets every two months to provide information, give consultations and refer patients to GPs for HCV testing.

Even though there are numerous referrals from Mental Health to the Liver Clinic there is scope for improved communication and there needs to be improved access for liver clinic patients to access mental health services. The crisis line is currently used to access services. The Liver Clinic uses private mental health services (psychologists and psychiatrists). Dermatology assessments are frequently required and these are usually obtained locally in the private sector.

Counsellors, social workers and dieticians are accessed from the community health centres and hospitals. Dental services are obtained from the public dental programs throughout the Area although the waiting time can be up to two years.

The Liver Clinic has developed a shared care protocol for GPs. There are between 6 and 10 patients receiving shared care hepatitis treatment with GPs at any time. Shared care is most popular in the remoter parts of the Area — Tabulum, Tenterfield for example. There are no GP prescribers. There is a general physician in Grafton who share-cares patients with the Liver Clinic.

#### Funding and Management

There is no general Area funding provided for the HCV Liver Clinic. Funding for the service comes from:

- HIV and Related Program funding
- pharmaceutical company funding
- Medicare

## Coffs Harbour

### Services

There is a weekly HCV treatment clinic that operates from Coffs Harbour Hospital and is co-located with the HIV/AIDS and Sexual Health Service. The clinic is staffed by a CNS, social worker, administration worker and a VMO physician once a fortnight for 3 hours (shared by two individuals so each VMO attends once a month).

### Patient numbers

The clinic sets a limit of 20 patients on anti-viral treatment at any one time due to the lack of resources. A total of 50 patients have completed treatment since the clinic's inception in 2004. In the last year about a third of the caseload at any time is Aboriginal. There are 50 people on the waiting list and waiting time is between 6 and 12 months.

### Staffing

The HCV service staff are as follows:

- VMO physician once a fortnight for 3 hours
- 0.6 FTE CNS
- 0.4 FTE social worker
- 0.2 FTE administration staff
- pharmacist provides initial consultation to discuss the anti-viral drugs

### Links with Other Services

The HCV clinic is part of the Sexual Health Service but is held on different days to the sexual health clinics. The D&A service refers to the HCV clinic but does not provide treatment or monitoring for HCV.

### Funding and Management

There is no general Area funding for the HCV service. All funding comes from the HIV and Related Programs funding. There is no pharmaceutical company funding. The doctors bill Medicare.

## 10.3.7 Greater Southern

### Services

Sexual Health Services provide testing, support and referral for HCV positive people seeking treatment. People seeking treatment either access public clinics in Melbourne, Canberra or Sydney.

There are 2 private Gastroenterologists in GSAHS who treat a limited number of clients; they are located in Wagga Wagga and Wodonga (Vic) on the NSW border with Albury. Both of these Specialists have lengthy waiting lists.

Publicly funded Sexual Health Services operate static and outreach clinics. Nurses provide clinical services in the following locations; Albury, Wagga Wagga, Griffith, Queanbeyan — providing outreach to Goulburn, Narooma — providing outreach clinics at Bega, Bateman's Bay and Moruya.

The Nurses also provide outreach clinics at Aboriginal Medical services in various locations and HEIST (Hepatitis Education Information Support and Testing) clinics operate in AOD treatment settings in Albury, Queanbeyan, Pambula and Bega. These services are Hepatitis focussed but provide an intervention opportunity for sexual health screening and treatment.

A Community Medical Officer (Sexual health) is based in Queanbeyan and conducts outreach clinics in Goulburn, Bega and Moruya. Visiting Sexual Health physicians provide services in Wagga Wagga, Albury and Griffith.

In relation to HCV, these services provide; screening for HCV antibodies; pre and post test counselling; support and information for HCV positive people and their carers/families; education on treatment, prevention and transmission; resource distribution; preliminary pre-treatment investigation and monitoring of Hepatitis C; Hepatitis A & B vaccinations and treatment referrals. Policy and Procedure and treatment referral pathways are being developed.

### Patient numbers

Hepatitis C related issues were recorded for 11% of the occasions of service in GSAHS Sexual Health Clinics throughout 2006/07. These OOS do not necessarily relate to treatment and support, spanning the spectrum of education, information and prevention issues also.

### Staffing

There is no dedicated Hepatitis C staff within GSAHS. Sexual health services do not have the capacity to provide treatment support.

### Links with Other Services

Sexual health service staff as part of their broader role provides support to clients known to their service undergoing treatment. There is no formal pathway for provision of treatment support between treating centres and Sexual Health services.

### Funding and Management

There are no general area funds for HCV services. All funding is from the HIV and related programs funds and is distributed to Sexual Health Services to provide HCV services in conjunction with HIV and STI services. There is no pharmaceutical company funding.

## 10.3.8 Greater Western Area Health Service

### Services

HCV services are limited in the GWAHS. The Area is currently in the process of gaining approval for the creation of a 2 year project officer position to develop an Area wide HCV services plan — to be completed by June 2009.

In Dubbo there is a gastroenterologist who visits every fortnight from Sydney. The CNC for BBVs/Manager of Sexual Health is on call 24 hours a day/7 days a week to provide support for the handful of patients on treatment.

She organises the patient's assessment and refers them to the sexual health physician who refers them on to the gastroenterologist if treatment is appropriate.

In Orange there are two gastroenterologists and there are currently 10 patients on anti-viral treatment who live all over the former Mid West Area. Nursing support is provided by the infection control nurse at Orange Base Hospital. She teaches the patients how to give themselves injections and patients travel to see her once a month in Orange. There is no clinic — the patients see the doctors in their rooms and make individual appointments with the infection control nurse at a time that is mutually convenient. The infection control nurse is on call for these patients and there is a mental health nurse consultant in the Emergency Department of Orange Base Hospital who also provides patient support. The patient's GP may be asked to monitor the patient's blood or, if the patient has a psychiatric history, he/she may be asked to see the patient weekly. There are a couple of GPs who have done the s100 prescriber's course but they only have 1 or 2 patients on treatment.

In Bathurst there is a gastroenterologist who treats some patients privately. There is no public service.

In the former Far West, screening and testing is done by the sexual health nurses. There are four sexual health nurses in total in the former Far West Area — at Broken Hill, Dareton, Lightning Ridge and Bourke. A gastroenterologist visits Broken Hill from Adelaide once a fortnight and the sexual health nurse in Broken Hill refers HCV positive patients to him. He prescribes anti-viral therapy and a physician (whose specialty is haematology) in Broken Hill share-cares the patient's treatment with him. Nursing support is provided by the oncology day ward staff and the physician provides counselling support.

In Lightning Ridge the sexual health nurse position has been vacant for the last three years. The position has just been filled and the incumbent anticipates that she will do screening and testing for HCV from the second week in August. It is not clear to her how she will access anti-viral treatment for people if they are found to be HCV positive and suitable for treatment. On the basis of data from the NSP there is a large IDU population in Lightning Ridge. In Bourke the sexual health position has only recently been filled after being vacant for about 18 months. Screening and testing for HCV will be available but there is not a clear referral pathway for people who may be appropriate for treatment.

### Patient numbers

In Dubbo there are 4 patients on anti-viral treatment. A former CNC for BBV estimated a potential remarkable increase in persons accessing HCV Treatment if additional resources were available.

In Orange there are 10 people on treatment currently and 18 people were treated last year. There are 5 patients who have been assessed but have not yet commenced treatment.

In the former Far West there are 2–3 people receiving treatment in Broken Hill at any time.

### Staffing

There is no dedicated HCV staff and no coordinated service in the GWAHS. Prescribing gastroenterologists operate from their private rooms and refer patients on anti-viral therapy to the CNC for BBVs/Manager for Sexual Health in Dubbo and the infection control nurse in Orange who provide support to the patients while on treatment. Both nurses provide this support as part of their broader role. In Broken Hill the sexual health nurse tests patients and refers to the visiting gastroenterologist who share-cares patients on treatment with a local physician with nursing support from the staff of the oncology day stay unit and counselling support from the local physician himself.

### Links with Other Services

There are not good links between the HCV services and other services because there is not a dedicated HCV service in the Area. Even within the former three Areas that comprise the GWAHS there are not coordinated services. At Orange the HCV service evolved because there was a patient with HCV in hospital with no support. The Orange service has little contact with the Sexual Health Service or the D&A service.

In Dubbo there used to be a resident gastroenterologist who provided treatment for patients with HCV. However now the only gastroenterologist visits every fortnight and there is limited support infrastructure so not many patients are on treatment.

### Funding and Management

The only funding identified for HCV treatment and care services is the funding from within the HIV and Related Programs budget and in the absence of a HARP manager it is not clear how that money is distributed across the Area.

## 10.3.9 Justice Health

### Services

Within Justice Health, the range of clinical hepatitis C services are managed by Population Health and provided primarily by Public/Sexual Health Nurses (PSHN). Each clinic, with the exception of Adolescent Health and the adult clinics run by sole clinicians has designated PSHN hours (the number of which varies depending on the size and population of each centre) with PSHN who have undertaken an accreditation process. These positions are funded from AIDS Program funding.

Within Adolescent Health (the arm of Justice Health that administers health services to juvenile justice centres and young people in custody across the state), most centres have a nurse who has undertaken the accreditation course but are not employed as specialist nurses.

In addition, specialist hepatitis medical services are provided by VMO Hepatitis C specialists in collaboration with the PSHN's in a number of metropolitan and some regional centres.

PSHNs are primarily funded and employed to provide public and sexual health services within Justice Health. The main focus of these services is the implementation of two programs: the Targeted Screening Program<sup>77</sup> (TSP) for Blood Borne Viruses and Sexually Transmitted Infections; and the Hepatitis B Vaccination Program. Skills and knowledge related to these areas are considered to be core skills for all PSHN and as such are a priority in terms of professional development for newly recruited PSHN (in relation to hepatitis C, these skills include risk assessment, pre and post test discussion and giving and managing positive results). After attainment of competency in the identified core skills for the specialty, PSHN gradually gain skills and knowledge in the additional specialty of hepatology, specifically related to chronic hepatitis C management.

Satellite services are available at Lithgow, Kirkconnell, Goulburn and St Heliers. Patients are transported to Long Bay, Bathurst or Cessnock to be seen at a specialist clinic but promptly returned to their centre of classification to commence treatment and be managed by an experienced PSHN who is supported by the CNC Hepatitis Clinical Care (Long Bay) or CNC Sexual Health and Hepatitis (level 3) and VMO medical staff. This approach provides a greater incentive to patients who do not want to risk losing their cell, job and proximity to family at their centre of classification. It is anticipated that this model of care will be expanded to other centres as it provides an alternative option to patients who do not want to be moved to Long Bay for extensive periods of time and also reduces long waiting lists and queues at Long Bay outpatient clinics.

Justice Health is currently establishing specialist medical services at Mid North Coast Correctional Centre (Kempsey).

The CNC Hepatitis / HIV Clinical Care is a 0.6 FTE position based at the Long Bay complex working within the Justice Health state-wide outpatients service. The CNC provides two specialist nursing clinics per week and supports the Hepatology and Immunology medical clinics (three times per month) and liver biopsy service (once a month). The position focuses on co-infected (HIV/Hepatitis C and/or B) patients and patients with hepatitis C who require complex care or commencement onto treatment prior to returning to their centre of classification. The CNC supports the local PSHN to oversee care of these patients when they also return.

Specialist VMO services and PSHN services are available at major women's facilities Silverwater Women's, Berrima, Dillwynia and Emu Plains.

Detailed information regarding the criteria and schedule for management of Hepatitis C is available in the Justice Health Hepatitis Clinical Management Guidelines. The removal (in April 2006) of liver biopsy as a pre-requisite to treatment has altered the treatment landscape considerably. The requirement for a biopsy meant patients had lengthy waits until they could have a biopsy either at limited sites within Justice Health or externally. The need for a diagnostic ultrasound or CT scan pre treatment can still considerably slow the process of commencement onto treatment, as patients still need to attend the local Area Health Service or Long Bay for ultrasound (CT scan is only available externally).

Hepatitis C treatment is commenced at any centre as long as there is an experienced PSHN who can monitor treatment once the person in custody has been seen by a VMO.

Justice Health receives \$26,000 (non-recurrent) Hepatitis C Education and Prevention Initiative (Commonwealth HCEP) funding. This has been used in 2005–06 and 2006–07 to fund a Clinical Nurse Consultant position in Hepatitis and HIV clinical care. Evaluation of this position is able to demonstrate the following performance outcomes:

- A marked increase in the number of nurse-led clinics and in the number of patients attending.
- A significant increase in the mean number of patients attending specialist Hepatitis Clinics for the first time after the CNC position commenced, and improved triaging by the CNC has meant fewer inappropriate referrals to the Clinics.
- A reduced length of stay of patients at Long Bay Hospital Area 2 (LBH2) accessing specialist HIV/Hepatitis Services (prior to returning to their centre of origin).
- An increased number of patients commenced on anti-viral treatment at their centre of origin (rather than LBH2).
- All patients co-infected with Hepatitis /HIV were provided access to specialist services at LBH2.

### Patient numbers

In March 2007 there were 80 people in custody on combination anti-viral treatment for hepatitis C.

### Staffing

The Justice Health HCV service is overseen by the Population Health Service Director. Justice Health's Population Health staff responsible for HCV service provision also include:

- A network of Visiting Medical Officer (VMO) Hepatitis specialists (see details below),
- Manager Blood Borne Viruses and Sexual Assault,

<sup>77</sup> The Targeted Screening Program aims to identify high risk behaviour or high risk groups such as custody naïve people, particularly young people and people who inject drugs and have never been tested for hepatitis C infection. This strategy ensures that resources are directed to screening those most at risk.

- Clinical Nurse Consultant Sexual Health and Hepatitis Level 3,
- CNC Hepatitis/HIV Clinical Care Level 1 and,
- 11.6 full time Public Sexual Health Nurses who also provide HIV and other STI related health care.

The Population Health Unit also includes the following staff who provide other Population Health related services as indicated by their job titles.

- CNC Infection Control (1.0 FTE)
- CNC Public Health Coordinator
- Surveillance Officer (1.0 FTE)
- Biopreparedness Officer (0.6 FTE)
- Project Officer Health Improvement (0.6 FTE)
- Visiting HIV/Sexual Health Physician (via Memorandum of Understanding with Sydney Sexual Health Centre) who provides on site clinics (8 hours per month) and ongoing support and advice by telephone.

Specialist VMO hepatitis C clinics are held in the following locations. (There is no VMO at Kempsey and limited attendance at Emu Plains, John Morony, Dillwynia and Parklea).

- Long Bay Hospital Area 2 (LBH2) — the state-wide outpatient facility for Justice Health — 12 hours per month
- Silverwater complex — clinics at three correctional facilities; Silverwater Works Release, Metropolitan Regional Remand Centre, Silverwater Women's — 4 hours per month
- Berrima (women) — 6 hours per month
- Dillwynia (women) — 4 hours per month
- Emu Plains (women) — 4 hours per month
- John Morony — 4 hours per month
- Parklea — 4 hours per month
- Bathurst — 4 hours per month
- Cessnock — 4 hours per month.

### Links with Other Services

A comprehensive Primary Health Care service is available to all patients in correctional centres and includes Drug and Alcohol, Mental Health, Dental and general health services via medical and nursing staff.

### Funding and Management

Justice Health receives limited funding for hepatitis services from various sources:

- \$114,000 of dedicated AIDS Program funds (as part of the total of \$1,367,706)
- general recurrent clinical funds. Pathology costs are however met by various Area Health Services under a longstanding arrangement
- Justice Health is reimbursed for s100 pharmacotherapies under the s100 High Cost Drugs Program
- dedicated funding under the HCEP Initiative. Justice Health currently receives \$26,000 per annum (non-recurrent) from HCEP. These monies are used to fund a part time Clinical Nurse Consultant position in Hepatitis C Clinical Care based at Long Bay Hospital 2, whose role is described under Services above.

## 10.4 Appendix D

### Casemix of HCV related separations and beddays

Table 18 AR-DRGs of HCV related separations and beddays in NSW hospitals, 2005/06

AR-DRG	Separations	Cost weighted seps	Bed-days
901Z,Extensive O.R. Procedure Unrelated to Principal Diagnosis	5	17	210
902Z,Non-Extensive O.R. Procedure Unrelated to Principal Diagnosis	1	2	1
A01Z,Liver Transplant	13	499	548
A06Z,Tracheostomy Any Age, Any Condition	64	1527	1864
A09A, Renal Transplant W Pancreas Transplant or Catastrophic CC	1	17	15
A09B, Renal Transplant W/O Pancreas Transplant W/O Catastrophic CC	1	13	27
B02A,Craniotomy W Catastrophic CC	5	48	128
B03A,Spinal Procedures W Catastrophic or Severe CC	2	14	45
B06A,Procs for Cerebral Palsy, Muscular Dystrophy, Neuropathy W Cat	2	11	73
B60A,Non-Acute Paraplegia/Quadriplegia W or W/O O.R. Procedures W Cat	7	48	643
B60B,Non-Acute Paraplegia/Quadriplegia W or W/O O.R. Procedures W/O C Not DC	6	14	94
B61A,Spinal Cord Conditions W or W/O O.R. Procedures W Catastrophic o	1	7	17
B63Z,Dementia and Other Chronic Disturbances of Cerebral Function Not DC	2	4	17
B64A, Delirium W Catastrophic CC	8	21	64
B64B, Delirium W/O Catastrophic CC	3	4	8
B66A,Nervous System Neoplasm Age>64	1	2	4
B67A,Degenerative Nervous System Disorders W Catastrophic or Severe C	3	10	70
B69A,TIA and Precerebral Occlusion W Catastrophic CC	2	4	7
B70A,Stroke W Severe or Complicating Diagnosis/Procedure	4	16	103
B70B,Stroke W Other CC Not DC	4	10	72
B70C,Stroke W/O Other CC Not DC	1	2	14
B70D,Stroke, Died or Transferred < 5 days Not DC	2	2	6
B71A,Cranial and Peripheral Nerve Disorders W CC Not DC	3	7	80
B74Z,Nontraumatic Stupor and Coma	1	1	7
B76A,Seizure Age<3 or W Catastrophic or Severe CC	13	18	109
B76B,Seizure Age>2 W/O Catastrophic or Severe CC	3	2	6
B80Z,Other Head Injury	1	0	3
B81A,Other Disorders of the Nervous System W Catastrophic or Severe C Not DC	8	18	58
B81B,Other Disorders of the Nervous System W/O Catastrophic or Severe Not DC	1	1	3
C03Z,Retinal Procedures	1	1	1
C16B, Lens Procedures, Sameday	3	2	3
C61Z,Neurological & Vascular Disorders of the Eye	2	3	9
C62Z,Hyphema and Medically Managed Trauma to the Eye	1	1	3
C63A,Other Disorders of the Eye W CC	2	2	9
D02A,Head and Neck Procedures W CC	1	5	52
D14Z, Mouth & Salivary Gland Procedures	1	1	1
D40Z,Dental Extractions and Restorations	4	1	21
D60A,Ear, Nose, Mouth and Throat Malignancy W Catastrophic or Severe	3	8	25
D62Z,Epistaxis	1	1	1
D63A,Otitis Media and URI W CC	2	2	2
D66A,Other Ear, Nose, Mouth and Throat Diagnoses W CC	1	1	5
D67A, Oral and Dental Disorders Except Extractions and Restorations	1	1	5
D67B, Oral and Dental Disorders Except Extractions and Restorations	4	1	4
E01A,Major Chest Procedures W Catastrophic CC	5	27	97
E01B,Major Chest Procedures W/O Catastrophic CC	1	3	38

AR-DRG	Separations	Cost weighted seps	Bed-days
E02B,Other Respiratory System O.R. Procedures W Severe CC Not DC	1	3	1
E40Z,Respiratory System Diagnosis W Ventilator Support	1	6	20
E41Z, Respiratory System Diagnosis W Non-invasive Ventilation	3	13	78
E61A,Pulmonary Embolism W Catastrophic or Severe CC	1	2	36
E62A,Respiratory Infections/Inflamations W Catastrophic CC Not DC	31	84	310
E62B,Respiratory Infections/Inflamations W Severe or Moderate CC Not DC	16	26	139
E62C,Respiratory Infections/Inflamations W/O CC Not DC	1	1	6
E64Z,Pulmonary Oedema and Respiratory Failure Not DC	3	5	20
E65A,Chronic Obstructive Airways Disease W Catastrophic or Severe CC Not DC	7	13	74
E65B,Chronic Obstructive Airways Disease W/O Catastrophic or Severe C Not DC	1	1	8
E66B,Major Chest Trauma (Age<70 W CC) or (Age>69 W/O CC)	1	2	16
E67A,Respiratory Signs and Symptoms W Catastrophic or Severe CC	4	4	22
E67B,Respiratory Signs and Symptoms Age<3 W/O Catastrophic or Severe	1	0	8
E69A,Bronchitis and Asthma Age>49 W CC Not DC	2	3	13
E69B,Bronchitis and Asthma (Age<50 W CC) or (Age>49 W/O CC) Not DC	3	3	11
E71A,Respiratory Neoplasms W CC Not DC	1	2	8
E71B,Respiratory Neoplasms W/O CC Not DC	1	1	10
E73A,Pleural Effusion W Catastrophic CC	14	34	189
E73B,Pleural Effusion W Severe CC Not DC	8	12	16
E73C,Pleural Effusion W/O Catastrophic or Severe CC Not DC	5	5	22
E75B,Other Respiratory System Diagnosis (Age<65 W CC) or (Age>64 W/O Not DC	2	2	21
F01A, Implantation or Replacement of AICD, Total System W Catastr o	1	11	106
F03Z,Cardiac Valve Proc W Pump W Invasive Cardiac Inves Procedure	2	26	62
F04A,Cardiac Valve Proc W Pump W/O Invasive Cardiac Inves Proc W Cat	2	19	60
F05A,Coronary Bypass W Invasive Cardiac Inves Procedure W Catastroph	1	9	18
F06B,Coronary Bypass W/O Invasive Cardiac Inves Procedure W/O Catastr	1	4	7
F07A, Other Cardiothoracic/Vascular Procedures W CPB Pump W Catastr	1	9	39
F08A,Major Reconstruct Vascular Procedures W/O Pump W Catastrophic CC	4	30	102
F08B,Major Reconstruct Vascular Procedures W/O Pump W/O Catastrophic	1	4	1
F14A,Vascular Procs Except Major Reconstruction W/O Pump W Catastroph	4	19	58
F14B,Vascular Procs Except Major Reconstruction W/O Pump W Severe CC	6	14	17
F15Z,Percutaneous Coronary Angioplasty W/O AMI W Stent Implantation	2	4	10
F21A,Other Circulatory System O.R. Procedures W Cat CC or (Age>64 W/O	1	4	6
F21B,Other Circulatory System O.R. Procedures Age<65 W/O Catastrophic	3	5	4
F40Z,Circulatory System Diagnosis W Ventilator Support	2	10	13
F42A,Circulatory Disorders W/O AMI W Invasive Cardiac Inves Proc W Co Not DC	4	8	62
F42B,Circulatory Disorders W/O AMI W Invasive Cardiac Inves Proc W/O	2	2	2
F60A,Circulatory Disorders W AMI W/O Invasive Cardiac Inves Proc W Ca	4	10	32
F60C,Circulatory Disorders W AMI W/O Invasive Cardiac Inves Procedure	1	1	1
F61Z,Infective Endocarditis Not DC	11	53	288
F62A,Heart Failure and Shock W Catastrophic CC	9	24	94
F62B,Heart Failure and Shock W/O Catastrophic CC Not DC	5	7	59
F63A,Venous Thrombosis W Catastrophic or Severe CC	5	10	67
F63B,Venous Thrombosis W/O Catastrophic or Severe CC Not DC	2	2	8
F65A,Peripheral Vascular Disorders W Catastrophic or Severe CC Not DC	5	10	33
F65B,Peripheral Vascular Disorders W/O Catastrophic or Severe CC Not DC	1	1	5
F66A,Coronary Atherosclerosis W CC	2	2	2
F67A,Hypertension W CC Not DC	7	9	64

AR-DRG	Separations	Cost weighted seps	Bed-days
F69A,Valvular Disorders W Catastrophic or Severe CC	1	2	1
F70A,Major Arrhythmia and Cardiac Arrest W Catastrophic or Severe CC	1	2	1
F71A,Non-Major Arrhythmia and Conduction Disorders W Catastrophic or Not DC	4	6	6
F72A,Unstable Angina W Catastrophic or Severe CC Not DC	2	3	12
F73A,Syncope and Collapse W Catastrophic or Severe CC Not DC	1	1	9
F73B,Syncope and Collapse W/O Catastrophic or Severe CC Not DC	2	1	9
F74Z,Chest Pain	9	6	12
F75A,Other Circulatory System Diagnoses W Catastrophic CC	5	15	21
F75B,Other Circulatory System Diagnoses W Severe CC Not DC	3	5	13
F75C,Other Circulatory System Diagnoses W/O Catastrophic or Severe CC Not DC	2	2	2
G01A,Rectal Resection W Catastrophic CC	2	16	51
G02A,Major Small and Large Bowel Procedures W Catastrophic CC	7	54	423
G03A,Stomach, Oesophageal and Duodenal Procedures W Malignancy	1	7	20
G03B,Stomach, Oesophageal and Duodenal Procedures W/O Malignancy W Ca	7	41	116
G04A,Peritoneal Adhesiolysis Age>49 W CC	1	5	36
G04B,Peritoneal Adhesiolysis (Age<50 W CC) or (Age>49 W/O CC)	1	2	1
G04C,Peritoneal Adhesiolysis Age<50 W/O CC	1	2	9
G07A,Appendectomy W Catastrophic or Severe CC	2	4	15
G08A, Abdominal and Other Hernia Procedures Age >59 or W Catastroph	6	10	50
G11A,Anal and Stomal Procedures W Catastrophic or Severe CC Not DC	1	2	11
G12A,Other Digestive System O.R. Procedures W Catastr or Severe CC or Not DC	6	26	75
G12B,Other Digestive System O.R. Procedures W/O Catastr or Sev CC W/O	5	7	44
G42A,Other Gastroscopy for Major Digestive Disease	19	35	92
G42B,Other Gastroscopy for Major Digestive Disease, Sameday	2	1	2
G44A,Other Colonoscopy W Catastrophic or Severe CC or Complicating Pr	1	2	14
G44C,Other Colonoscopy, Sameday	1	0	1
G45A,Other Gastroscopy for Non-Major Digestive Disease	5	7	52
G45B,Other Gastroscopy for Non-Major Digestive Disease, Sameday	8	4	8
G46A, Complex Gastroscopy W Catastrophic or Severe CC	22	59	200
G46B, Complex Gastroscopy W/O Catastrophic or Severe CC	6	9	29
G46C, Complex Gastroscopy, Sameday	28	11	28
G60A,Digestive Malignancy W Catastrophic or Severe CC Not DC	3	5	31
G61A,GI Haemorrhage (Age<65 W Catastrophic or Severe CC) or Age>64	12	12	59
G61B,GI Haemorrhage Age<65 W/O Catastrophic or Severe CC	1	0	6
G64Z,Inflammatory Bowel Disease Not DC	1	1	9
G65A,GI Obstruction W CC Not DC	1	2	1
G66A,Abdominal Pain or Mesenteric Adenitis W CC	10	9	38
G67A,Oesophagitis, Gastroent & Misc Digestive System Disorders Age>9 Not DC	16	22	111
G67B,Oesophagitis, Gastroent & Misc Digestive Systm Disorders Age>9 W Not DC	1	1	2
G70A,Other Digestive System Diagnoses W CC Not DC	33	47	270
G70B,Other Digestive System Diagnoses W/O CC Not DC	2	1	11
H01A,Pancreas, Liver and Shunt Procedures W Catastrophic CC	17	147	257
H01B,Pancreas, Liver and Shunt Procedures W Severe or Moderate CC	5	24	18
H02A,Major Biliary Tract Procedures W Malignancy	2	11	54
H02B,Major Biliary Tract Procedures W/O Malignancy W Catastrophic or	2	10	12
H05A,Hepatobiliary Diagnostic Procedures W Catastrophic or Severe CC	6	20	23
H05B,Hepatobiliary Diagnostic Procedures W/O Catastrophic or Severe C	7	9	15
H06Z,Other Hepatobiliary and Pancreas O.R. Procedures	4	19	30

AR-DRG	Separations	Cost weighted seps	Bed-days
H07A, Open Cholecystectomy W Closed CDE or Catastrophic CC	1	5	4
H07B, Open Cholecystectomy W/O Closed CDE W/O Catastrophic CC	6	15	38
H08A, Laparoscopic Cholecystectomy W Closed CDE Or Catastrophic/Sev	40	100	167
H08B, Laparoscopic Cholecystectomy W/O Closed CDE W/O Catastrophic/	53	66	132
H40Z, Endoscopic Procedures for Bleeding Oesophageal Varices	36	79	240
H41A, ERCP Complex Therapeutic Procedure W Catastrophic or Severe CC	6	20	119
H41B, ERCP Complex Therapeutic Procedure W/O Catastrophic or Severe CC	7	11	33
H42A, ERCP Other Therapeutic Procedure W Catastrophic or Severe CC Not DC	13	38	94
H42B, ERCP Other Therapeutic Procedure W/O Catastrophic or Severe CC	4	5	17
H42C, ERCP Other Therapeutic Procedure W/O CC	10	12	27
H60A, Cirrhosis and Alcoholic Hepatitis W Catastrophic CC	148	522	1559
H60B, Cirrhosis and Alcoholic Hepatitis W Catastrophic or Severe CC Not DC	53	91	269
H60C, Cirrhosis and Alcoholic Hepatitis W/O Catastrophic or Severe CC Not DC	16	17	61
H61A, Malignancy of Hepatobiliary System, Pancreas Age>69 W Catastr or	47	99	513
H61B, Malig Hepatobily Sys, Pancreas (A<70 W Cat/Sev CC) or (A>69 W/O Not DC	78	135	262
H62A, Disorders of Pancreas Except for Malignancy W Catastrophic or Se	7	19	52
H62B, Disorders of Pancreas Except for Malignancy W/O Catastrophic or Not DC	1	1	1
H63A, Disorders of Liver Except Malig, Cirrhosis, Alcoholic Hepatitis Not DC	202	524	1550
H63B, Disorders of Liver Excep Malig, Cirrhosis, Alcoholic Hepatitis W Not DC	473	240	594
H64A, Disorders of the Biliary Tract W CC Not DC	3	4	3
I03A, Hip Revision W Catastrophic or Severe CC	2	25	40
I03B, Hip Replacement W Cat or Severe CC or Hip Revision W/O Cat or Se	2	14	50
I04Z, Knee Replacement and Reattachment	2	9	15
I07Z, Amputation	2	12	63
I08A, Other Hip and Femur Procedures W Catastrophic or Severe CC	4	20	229
I09A, Spinal Fusion W Catastrophic or Severe CC	1	11	22
I12A, Infect/Inflam of Bone & Joint W Misc Musc Sys & Conn Tiss Procs	2	14	83
I13A, Humerus, Tibia, Fibula and Ankle Procedures W Catastrophic or Se	4	19	62
I25Z, Bone and Joint Diagnostic Procedures including Biopsy Not DC	1	3	46
I27A, Soft Tissue Procedures W Catastrophic or Severe CC	3	10	77
I28A, Other Connective Tissue Procedures W CC	1	4	18
I64A, Osteomyelitis (Age< 65 W Catastrophic or Severe CC) or Age>64 Not DC	4	12	86
I65A, Connective Tissue Malignancy, including Pathological Fracture Ag Not DC	3	7	15
I66A, Other Connective Tissue Disorders (Age<65 W Catastr or Severe CC Not DC	1	2	28
I66B, Other Connective Tissue Disorders Age<65 W/O Catastrophic or Sev Not DC	1	1	3
I67A, Septic Arthritis W Catastrophic or Severe CC	7	20	97
I68A, Non-Surg Neck & Back Cond W/O Pain Managmt Proc/Myelo (Age<75 W Not DC	6	10	56
I69A, Bone Diseases and Specific Arthropathies Age>74 W Catastrophic o	2	5	9
I72A, Tendonitis, Myositis and Bursitis (Age<80 W Catastr or Severe CC	3	5	18
I73A, Aftercare of Connective Tissue Disorders Age>59 W Catastrophic o	2	7	62
I73B, Aftercare Conn Tiss Disorder (Age<60 W Cat/Sev CC) or (Age>59 W/ Not DC	1	1	23
I74A, Injury to Forearm, Wrist, Hand or Foot Age>74 W CC Not DC	2	3	21
I75B, Inj to Should, Arm, Elbow, Knee, Leg, Ankle (Age<65 W CC) or (Ag Not DC	1	1	5
I76A, Other Connective Tissue Disorders Age>69 W CC	1	2	32

AR-DRG	Separations	Cost weighted seps	Bed-days
I77A, Fractures of Pelvis W Catastrophic or Severe CC	1	3	52
I78A, Fractures of Neck of Femur W Catastrophic or Severe CC	1	2	44
J08A,Other Skin Graft and/or Debridement Procedures W Catastrophic or Not DC	6	18	55
J08B,Other Skin Graft and/or Debridement Procedures W/O Catastrophic	3	3	26
J11Z,Other Skin, Subcutaneous Tissue and Breast Procedures	6	4	16
J12A, Lower Limb Procs W Ulcer/Cellulitis W Catastr CC	4	34	104
J12C, Lower Limb Procs W Ulcer/Cellulitis W/O Catastr CC W/O Skin G	5	14	50
J60A,Skin Ulcers Age>64 Not DC	6	15	32
J60B,Skin Ulcers Age<65 Not DC	1	2	1
J63Z,Non-Malignant Breast Disorders	2	2	3
J64A,Cellulitis Age>59 W Catastrophic or Severe CC Not DC	8	18	83
J64B,Cellulitis (Age>59 W/O Catastrophic or Severe CC) or Age<60 Not DC	265	252	1183
J65B,Trauma to the Skin, Subcutaneous Tissue and Breast Age<70	6	3	49
J67A,Minor Skin Disorders W CC	6	7	45
K01Z,Diabetic Foot	5	31	72
K03Z,Adrenal Procedures	1	3	3
K04Z,Major Procedures for Obesity	3	8	11
K05Z,Parathyroid Procedures	2	3	16
K09Z,Other Endocrine, Nutritional and Metabolic O.R. Procedures Not DC	1	4	10
K60A,Diabetes W Catastrophic or Severe CC Not DC	22	47	220
K60B,Diabetes W/O Catastrophic or Severe CC Not DC	37	41	171
K62A,Miscellaneous Metabolic Disorders W Catastrophic CC	6	14	80
K62B,Miscellaneous Metabolic Disorders W Severe CC or (Age>74 W/O Sev Not DC	3	4	3
K62C,Miscellaneous Metabolic Disorders W/O Catastrophic or Severe CC Not DC	1	1	1
K64A,Endocrine Disorders W Catastrophic or Severe CC Not DC	1	2	11
L02B, Operative Insertion of Peritoneal Catheter for Dialysis W/O C	1	2	1
L03A,Kidney, Ureter and Major Bladder Procedures for Neoplasm W Cat o	2	13	35
L04B,Kidney, Ureter & Major Bladder Procedures for Non-Neoplasm W/O C Not DC	1	3	6
L06A,Minor Bladder Procedures W Catastrophic or Severe CC	1	3	11
L09A,Other Procedures for Kidney and Urinary Tract Disorders W Catast	8	52	123
L09B,Other Procedures for Kidney and Urinary Tract Disorders W Severe	2	4	27
L09C,Other Procedures for Kidney and Urinary Tract Disorders W/O Cat	4	7	9
L60A,Renal Failure W Catastrophic CC	9	34	95
L60B,Renal Failure W Severe CC or (Age > 69 W/O Severe CC) Not DC	6	11	28
L60C,Renal Failure Age<70 W/O Catastrophic or Severe CC Not DC	18	22	89
L61Z,Admit for Renal Dialysis	144	26	144
L63A,Kidney and Urinary Tract Infections Age>69 W Catastrophic CC Not DC	10	22	115
L63B,Kidney and Urinary Tract Infections Age>69 W/O Catastrophic CC Not DC	4	5	25
L63C,Kidney and Urinary Tract Infections Age < 70 Not DC	1	1	12
L64Z,Urinary Stones and Obstruction	2	1	4
L65A,Kidney and Urinary Tract Signs and Symptoms W Catastrophic or Se Not DC	1	1	1
L67A,Other Kidney and Urinary Tract Diagnoses W Catastrophic CC Not DC	13	34	149
L67B,Other Kidney and Urinary Tract Diagnoses W Severe CC Not DC	10	17	75
L67C,Other Kidney and Urinary Tract Diagnoses W/O Catastrophic or Sev Not DC	5	4	37

AR-DRG	Separations	Cost weighted seps	Bed-days
M04A,Testes Procedures W CC	1	1	19
M60A,Malignancy, Male Reproductive System W Catastrophic or Severe CC Not DC	1	2	35
M62A,Inflammation of the Male Reproductive System W CC	2	2	10
M64Z,Other Male Reproductive System Diagnoses	2	1	2
N03A,Uterine, Adnexa Procedure for Non-Ovarian or Adnexal Malignancy	1	3	4
N05A,Oophorectomies and Complex Fallopian Tube Procs for Non-Malig W	1	2	11
N05B,Oophorectomies & Complex Fallopian Tube Procs for Non-Malig W/O	1	1	1
N07Z,Other Uterine and Adnexa Procedures for Non-Malignancy	3	3	22
N08Z,Endoscopic Procedures for Female Reproductive System	9	6	10
O60A,Vaginal Delivery W Multiple Complicating Diagnoses, At Least One	3	4	31
O66A, Antenatal & Other Obstetric Admission	6	3	74
Q01Z,Splenectomy	1	3	8
Q02A,Other O.R. Procedure of Blood & Blood Forming Organs W Catastr o	2	7	51
Q60A,Reticuloendothelial and Immunity Disorders W Catastrophic or Sev Not DC	3	8	47
Q61A,Red Blood Cell Disorders W Catastrophic CC Not DC	6	12	60
Q61B,Red Blood Cell Disorders W Severe CC Not DC	3	3	3
Q61C,Red Blood Cell Disorders W/O Catastrophic or Severe CC Not DC	1	1	1
Q62Z, Coagulation Disorders	1	1	6
R01A,Lymphoma and Leukaemia W Major O.R. Procedures W Catastrophic or	1	9	29
R01B,Lymphoma and Leukaemia W Major O.R. Procedures W/O Catastrophic	1	3	19
R03A,Lymphoma and Leukaemia W Other O.R. Procedures W Catastrophic or	1	8	136
R04A,Other Neoplastic Disorders W Other O.R. Procedures W Catastr or Not DC	2	7	21
R60A,Acute Leukaemia W Catastrophic CC Not DC	1	10	32
R60B,Acute Leukaemia W Severe CC Not DC	1	3	9
R60C,Acute Leukaemia W/O Catastrophic or Severe CC Not DC	1	2	6
R61A,Lymphoma and Non-Acute Leukaemia W Catastrophic CC	7	31	87
R61B,Lymphoma and Non-Acute Leukaemia W/O Catastrophic CC	3	4	12
R61C,Lymphoma and Non-Acute Leukaemia, Sameday	1	0	1
R62A,Other Neoplastic Disorders W CC Not DC	1	2	16
S60Z,HIV, Sameday	3	1	3
S65A, HIV-Related Diseases W Catastrophic CC	7	63	138
S65B, HIV-Related Diseases W Severe CC	1	4	16
S65C, HIV-Related Diseases W/O Catastrophic or Severe CC	4	8	12
T01A,O.R. Procedures for Infectious and Parasitic Diseases W Catastro	7	57	251
T01B,O.R. Procedures for Infectious and Parasitic Diseases W Severe o Not DC	2	6	17
T60A,Septicaemia W Catastrophic or Severe CC	61	174	733
T60B,Septicaemia W/O Catastrophic or Severe CC	15	20	52
T61A,Postoperative & Post-Traumatic Infect W Cat/Sev CC or (Age>54 W/ Not DC	7	11	36
T61B,Postoperative & Post-Traumatic Infections Age<55 W/O Catastr or Not DC	1	1	10
T62A,Fever of Unknown Origin W CC Not DC	2	3	7
T63A,Viral Illness Age>59	11	10	47
T63B,Viral Illness Age<60	14	8	23
T64A,Other Infectious and Parasitic Diseases W Catastrophic or Severe Not DC	2	5	33
T64B,Other Infectious and Parasitic Diseases W/O Catastrophic or Seve Not DC	1	1	6

AR-DRG	Separations	Cost weighted seps	Bed-days
U61A,Schizophrenia Disorders W Mental Health Legal Status	7	2	268
U61B,Schizophrenia Disorders W/O Mental Health Legal Status	1	1	98
U62A,Paranoia & Acute Psych Disorder W Cat/Sev CC or W Mental Health	2	6	23
U63A,Major Affective Disorders W Cat or Sev CC or (Age>69 W/O Cat or	4	11	43
U64Z,Other Affective and Somatoform Disorders	2	2	4
U65Z,Anxiety Disorders	1	1	32
U67Z,Personality Disorders and Acute Reactions	3	2	47
V60A, Alcohol Intoxication and Withdrawal W CC	6	5	19
V61Z, Drug Intoxication and Withdrawal	6	5	65
V62A,Alcohol Use Disorder and Dependence	4	3	32
V63A, Opioid Use Disorder and Dependence	5	5	38
V63B, Opioid Use Disorder and Dependence, Left Against Medical Advi	2	1	11
V64Z,Other Drug Use Disorder and Dependence Not DC	4	2	24
W01Z,Ventilation or Craniotomy Procs for Multiple Significant Trauma	1	25	24
X04A,Other Procedures for Injuries to Lower Limb Age>59 or W CC	1	3	2
X05Z,Other Procedures for Injuries to Hand	1	1	3
X06A,Other Procedures for Other Injuries W Catastrophic or Severe CC Not DC	6	21	53
X07A, Mic Tissue Transfer or (Skin Graft W Cat/Sev CC) for Injuries	1	6	112
X60A,Injuries Age>64 W CC Not DC	1	2	35
X60C,Injuries Age < 65 Not DC	12	7	69
X61Z,Allergic Reactions	1	1	7
X62A,Poisoning/Toxic Effects of Drugs & Other Substances Age>59 or W	19	20	102
X62B,Poisoning/Toxic Effects of Drugs & Other Substances Age<60 W/O C	2	1	3
X63A,Sequelae of Treatment W Catastrophic or Severe CC Not DC	14	23	193
X63B,Sequelae of Treatment W/O Catastrophic or Severe CC Not DC	1	1	23
Y01Z,Severe Full Thickness Burns	1	38	48
Y02A,Other Burns W Skin Graft Age>64 or W Cat/Sev CC or W Complicg Di	1	10	13
Y62A,Other Burns Age>64 or W Catastr or Severe CC or W Complicating D	1	2	11
Z01A,O.R. Procedures W Diagnoses of Other Contacts W Health Services	3	5	127
Z01B,O.R. Procedures W Diagnoses Other Contacts W Health Services W/O	2	1	2
Z60A	31	0	732
Z60B	4	0	84
Z61Z,Signs and Symptoms	169	174	357
Z62Z,Follow Up After Completed Treatment W/O Endoscopy	2	1	8
Z63A,Other Aftercare W Catastrophic or Severe CC Not DC	3	5	15
Z63B,Other Aftercare W/O Catastrophic or Severe CC Not DC	1	1	3
Z64A,Other Factors Influencing Health Status Age>79 Not DC	7	10	73
Z64B,Other Factors Influencing Health Status Age<80 Not DC	2	1	2
<b>Grand Total</b>	<b>3127</b>	<b>7548</b>	<b>24304</b>









