

**Counties Manukau  
District Health Board**

**Ophthalmology  
Health Services Plan**

**February 2008**

## 1.0 Introduction

Clinical ophthalmology services for the CMDHB population are provided through the CMDHB Ophthalmology Department and ADHB Ophthalmology Service. Referrals are received from general practitioners, private optometrists, private ophthalmologists, and preschool vision testers. General practitioners provide primary care assessment and treatment of minor eye conditions. Acute and tertiary services including surgery requiring inpatient admission are provided at ADHB.

Counties Manukau Ophthalmology Department is currently a secondary-care service based at Manukau SuperClinic (MSC) Module 7, providing Specialist consultation, diagnosis, medical and surgical treatment of diseases of the eye and visual system, the orbit and ocular adnexae.

Consultation services currently provided include:

- General ophthalmology and cataract
- Glaucoma
- Neuro-ophthalmology
- Diseases of the anterior segment and cornea
- Oculoplastics and orbit
- Paediatric ophthalmology and ROP screening
- Orthoptic service
- Medical retina and diabetic eye disease
- Ophthalmic surgery including: Cataract squint, glaucoma, oculoplastics
- Laser photocoagulation treatment/ and YAG laser

CMDHB employed staff provide the majority of Ophthalmologist sessions at CMDHB. 33.5 clinic sessions/week are provided by CMDHB ophthalmologists, 11 sessions/week by visiting ADHB ophthalmologists and 4 sessions/week by visiting ADHB registrars. In addition to medical staff and administration staff, the CMDHB services involves nurses, ophthalmic technicians, orthoptists and 2 optometrist sessions per week for diabetic screening only

Operating at Manukau Surgery Centre includes six elective day patient sessions per week and involves an extensive range of secondary care ophthalmology procedures.

*Table 1: Procedure provision for Counties Manukau residents*

<b>Core procedures currently undertaken at MSC<sup>[*]</sup></b>	<b>Potential additional procedures<sup>[†]</sup></b>
Cataracts ( local )	Corneal Grafts
Pterygium ( local)	Scleral and Conjunctival Procedures
Trabeculectomy	Vitreoretinal surgery eg retinal detachment
dacryocystorhinostomy/naso lacrimal surgery	Other glaucoma drainage procedures e.g. Molteno implants
Paediatric Strabismus	Adult strabismus
Oculoplastic procedures including lid surgery	Some orbital procedures e.g.. Enucleation
Ptosis surgery	
Enucleation	
Anterior Vitrectomy	

Ophthalmology services are highly equipment dependant and are significantly sub-specialised. Models of Care have changed in an evolutionary way in response to clinical and technology development.

Acute patients frequently self-present to Emergency Care (EC) at Middlemore Hospital. While Emergency Physicians have a greater level of knowledge than Primary Care practitioners on the

<sup>[\*]</sup> Procedures where there is currently the necessary equipment and appropriate infrastructure at MSC

<sup>[†]</sup> Procedures where equipment and appropriate infrastructure could reasonably be provided by a secondary care service. Decisions regarding these procedures would take into account equipment requirements, tertiaryness, day patient only requiring ophthalmic supervision, quality of outcomes.

management of eye conditions, many acute eye patients will be referred from EC to Greenlane Clinical Centre.

<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• MSC has a dedicated module.</li> <li>• Modern equipment and good access to new technology.</li> <li>• Dedicated nursing and technical staff.</li> <li>• Good quality clinical outcomes are being delivered.</li> <li>• Specialist service with limited RMO involvement is efficient and high quality.</li> <li>• A high level of commitment by CMDHB employed SMO staff.</li> <li>• Regional continuing medical Education (CME).</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Inadequate SMO, nursing and technical staff FTE.</li> <li>• Insufficient theatre sessions to deliver current contract.</li> <li>• Limited range of elective secondary care services being locally delivered.</li> <li>• No junior staff provision discourages a mutual learning environment and challenges subsequent recruitment of SMOs.</li> <li>• Insufficient outpatient and procedure facilities for expanding service.</li> <li>• Poor access to nursing and technician education and training within the region which makes it difficult to recruit staff.</li> </ul>
<p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>• Provision of full elective secondary care service locally and the ability to meet contracts without private sector subcontracting .</li> <li>• Better meet CMDHB local needs locally and integrate better with other local health services .</li> <li>• High level of complex ophthalmology disease.</li> <li>• An innovative approach to the development of shared models of care.</li> <li>• Development of nurse specialist and shared care models.</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>• Need to support regional solutions that challenge local service development and disadvantage local residents.</li> <li>• Lack of regional contract alignment of SMO's regional and national competition for scarce SMO, nursing and technical resources.</li> <li>• Reduced professional development opportunities as a secondary service.</li> </ul>

## 2.0 Key Issues

### 2.1 Major volume growth

Demographic changes: High rates of growth in the CMDHB population which is exacerbated by ageing of the population. Older people have higher rates of cataract disease which requires cataract surgery and macular degeneration which requires chronic monitoring and multiple treatments by specialist services. There is a prevalence of chronic diseases such as diabetes and glaucoma which both require life long monitoring and treatment. It is well known that diabetics require cataract surgery 10 years earlier than non diabetics.

### 2.2 Paediatric Ophthalmology

CMDHB specialist paediatric ophthalmology services are reliant on one local CMDHB specialist and this has proven challenging during periods of annual leave. A second CMDHB specialist is now available to share the retinopathy of prematurity screening where a responsive service is critical.

### **2.3 Complexity of secondary care service provision**

Clinical knowledge of ophthalmology conditions within primary care is relatively limited with low thresholds for management of conditions within primary care. This is consistent throughout New Zealand and internationally. Secondary care services are therefore increasingly configured to provide specialist nurses, ophthalmic technicians, orthoptists and optometrists to manage significant components of a patient's care in the specialist setting under the guidance of ophthalmologists. Ophthalmology Departments need to have robust systems and processes to manage both the high volume of patients and the clinical pathways involving multiple steps and different skill mixes. Ophthalmology Departments therefore need to be configured efficiently and well managed.

### **2.4 Secondary Care services provided by Auckland DHB**

Currently a large volume of elective secondary care procedures for Counties Manukau residents are provided at ADHB Greenlane Clinical Centre (GCC). This results in unnecessary and avoidable travel for Counties Manukau residents for treatment and does not support the development of CMDHB Ophthalmology Services. Currently an additional 91 to 150 WIES of elective secondary care surgery is suitable for repatriation to MSC when CMDHB services are appropriately configured.

### **2.5 Lack of local provision of acute services**

There is an ADHB commitment to the provision of the after-hours specialist service at Greenlane Clinical Centre (GCC) for people from the Auckland region. Currently all acute services are provided out of GCC but this results in large volumes of COUNTIES MANUKAU residents needing to travel to GCC for treatment. Acute eye injuries are often related to industry and industry is heavily concentrated in South Auckland. Follow-up of eye injuries are also often associated with multiple scheduled appointments on consecutive days at GCC which is difficult for many South Auckland patients.

## **3.0 Trends and Future Directions**

### **Workforce**

As with many specialties internationally, there is a trend for the ophthalmologist workforce to move increasingly toward a high degree of sub-specialisation. It can be a challenge to recruit specialists with the required mix of subspecialist skills in a developing department. As a secondary service we are dependent on recruiting an SMO workforce with general skills and subspecialist interests.

There is also an international trend to up skill nursing and technical staff to provide shared care for management of chronic diseases (such as glaucoma and diabetes) and to manage the increasing volumes of elderly patients requiring cataract surgery. This requires commitment from the clinical workforce to provide ongoing training, education, develop structures and processes for audit and credentialing. CMDHB is fortunate to have a very dedicated team that is supportive of change and development of shared care models.

### **Technology**

Increasingly Ophthalmology is dependant on expensive equipment for the diagnosis and management of disease such as increasingly glaucoma, retinal and corneal disease. New equipment often has a significant impact on the outcomes for patient treatment such as the PASCAL Laser. This is a new method for delivering photocoagulation laser for treatment of diabetic eye disease and other retinal vascular diseases. This new technology reduces patient discomfort and side effects, as well as reducing the number of treatments per patient and the length of time per treatment. This has a significant impact on waiting times and patient non attendance. Patients are increasingly using the internet to keep abreast of technological developments and have higher expectations regarding treatment than in the past.

## **New treatments**

With the introduction of new medical treatments such as Avastin and Triamclicone injections for Age Related Macular Degeneration and Diabetic Eye Disease, the volume of patients who can benefit from treatment is likely to increase by at least an additional 22% in the next 1-2 years. This will have a significant impact for cost of treatment and volumes for inpatient treatments and outpatient volumes for ongoing monitoring. The service will not have the space to do these procedures in an outpatient procedure room until the new module is completed in December 2008. Until then this will continue to impact on theatre capacity, with current volume expected to take up as many as 24 lists per annum i.e. reducing cataract volumes by up to 72.5 WIES.

The development of the CMDHB Ophthalmology Service has been done through regular discussions between CMDHB and ADHB. More recently a Regional Service Planning (RSP) process was commenced and this will result in clear direction for local specialist ophthalmology services.

## **CMDHB Directions**

Currently CMDHB is involved in regional service planning with ADHB and WDHB. This will be completed in early 2008. While some outcomes are likely to have a short time-frame for implementation, others such as ADHB devolving Monday to Friday secondary acute services to WDHB and CMDHB, are expected to have at least a 5-year timeframe.

## **Repatriation of elective secondary care surgical volumes from ADHB (2008-2009)**

CMDHB and ADHB will address elective surgical referral and treatment patterns to ensure that remaining elective secondary care procedures are repatriated from ADHB. This will be supported by the employment of additional specialist, nursing and technical staff, and the commissioning of the enlarged ophthalmology module by December 2008.

## **Development of acute ophthalmology consultation and treatment service (2013)**

Within five years (2013), the ophthalmology service will need a further expansion of the ophthalmology module at MSC to accommodate the growth in patient volumes and increased throughput. The 2013 module expansion will coincide with the CMDHB service providing a secondary, low acuity non inpatient acute service 0800-1700 hours Monday to Friday. New presentations will be on referral from GPs or EC and acute follow ups (whether the initial presentation was at GCC or MSC will be accommodated).

## **Development of multidisciplinary workforce**

To accommodate major service growth and an international shortage of specialists, the CMDHB workforce will be expanded and to include a full range of nursing, technical and support staff. The development of Nurse Specialist roles will assist in the management of chronic patients. The expansion of the department will result and drive increased training and ongoing learning within the department.

## **Enhanced Diabetes Retinal Screening and management of patients with diabetic retinopathy**

CMDHB will continue to enhance the Diabetes Retinal Screening Programme to ensure early detection and treatment of diabetic eye disease and prevent avoidable blindness. This will continue to be a community-based service with close liaison with specialist treatment services. Early and timely referral to secondary services for monitoring of more advanced disease and treatment using PASCAL laser (instituted in 2007) will significantly improve patient outcomes and health status of diabetic patients. Closer liaison between specialist services, primary care and diabetes services will provide a more integrated service for patients with higher levels of patient compliance and improved outcomes.

## **ADHB and CMDHB Ophthalmology interface**

ADHB will continue to be the regional provider of tertiary ophthalmology services for the people of Counties Manukau. All elective patients who cannot be treated either in the clinic environment, or as day surgery admissions, are currently referred to ADHB for treatment in tertiary settings. These procedures would require inpatient facilities and are genuine tertiary procedures - low volume and highly specialised. A number of areas will be inappropriate for the foreseeable future to be delivered by CMDHB including orbital cancers and complex vitreo retinal procedures.

Electrodiagnostic tests are currently provided by ADHB. These are an integral part of secondary care for paediatric, genetic and neurological eye disease. In the future CMDHB should invest in equipment as part of secondary care provision.

CMDHB will continue to support the after hours Acute Ophthalmology service at GCC.

## **4.0 Key Directions**

- ✓ *Repatriation of elective secondary care surgical volumes from ADHB (2008-2009).*
- ✓ *Development of acute ophthalmology consultation and treatment service (2013).*
- ✓ *Development of multidisciplinary workforce.*
- ✓ *Enhanced Diabetes Retinal Screening and management of patients with diabetic retinopathy.*
- ✓ *ADHB as the provider of tertiary ophthalmology services.*