

2016 Hospital Authority Convention
醫院管理局研討大會

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HBO service – Australian's experience

HA convention Master Class

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HBO service in Australia

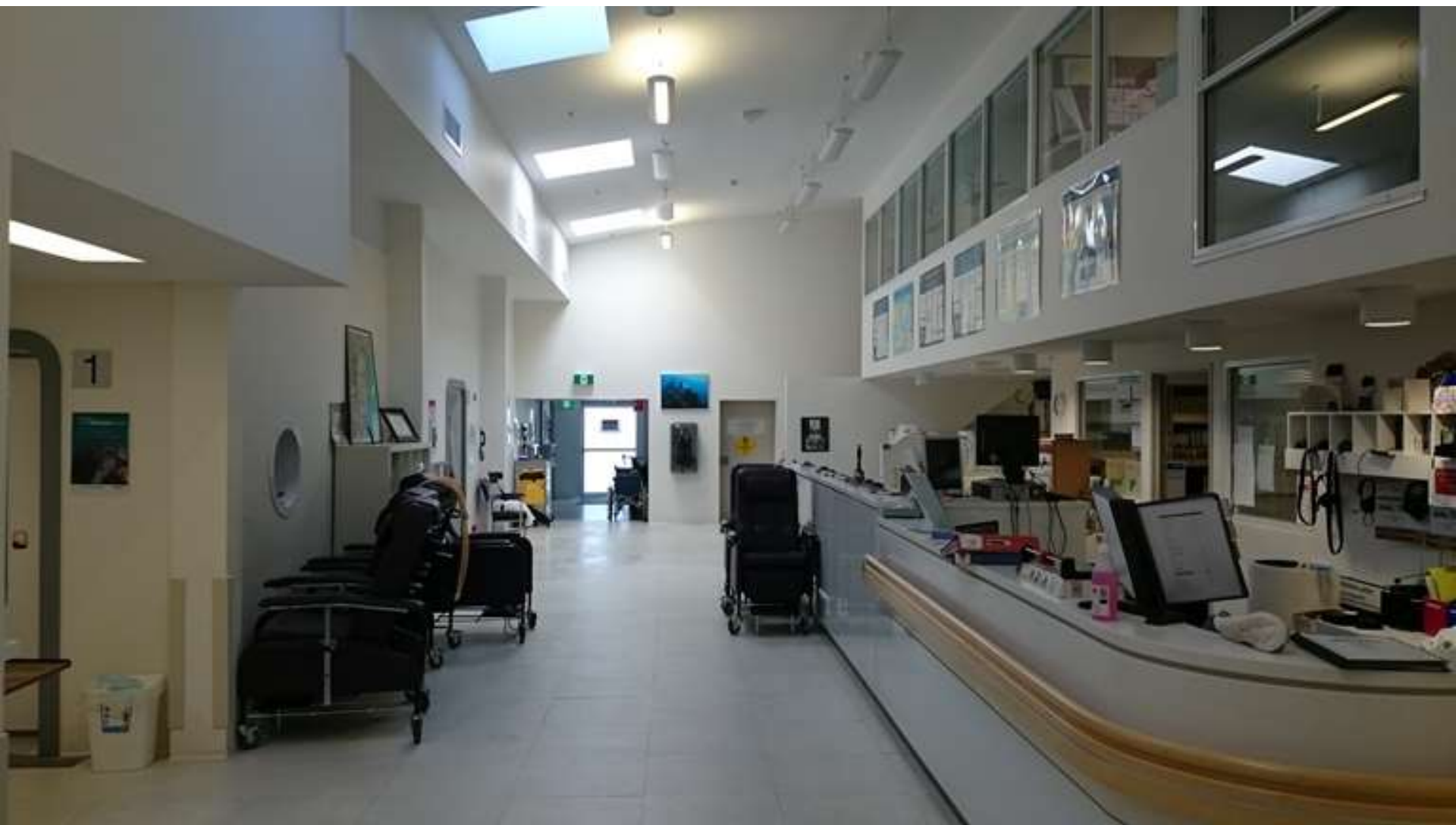
- Medicare
- Medical Service Advisory Committee (MSAC) approved indications
 - Decompression sickness
 - Arterial Gas Embolism
 - Selected problem wounds
 - Delayed radiation injury to soft tissue and bone
 - Clostridial Myositis and Myonecrosis

Major clinical service

1. Hyperbaric oxygen therapy
 - Emergency and elective cases
2. Wound management
3. Diving medicine
 - Decompression sickness
 - other dive injuries
 - Fitness to dive
 - Recreational / Occupational









HBO unit design

- **Hyperbaric chamber**
 - Compressor, tanks, pipes, deluge etc
- **Control panel & Nurse station**
- Reception area
 - Changing room and lockers
- Consultation room
- Resuscitation room
- Wound care room
- Equipment room
- Doctors, nurses and technicians' office
- Conference room

New South Wales

- Hyperbaric unit in POWH
 - Serves population of ~8 million
 - The only public HBU
- Private HBUs
- Staffing
 - Hyperbaric physicians
 - Hyperbaric nurses
 - Hyperbaric technicians

Hyperbaric physician

- Doctors' responsibilities
 - Supervise HBOT (Before, during and after)
 - Take consultations and referrals
 - Divers assessment

Hyperbaric nurses

- Nurses
 - Nurse in-charge
 - Attendant during each HBO session
 - Wound care

Staffing

- Technicians
 - Navy background
 - Operate chamber, maintenance of chamber
- Clerks/ secretary
 - Appointments and accommodations, reimbursement etc

Commonly treated conditions

- Elective
 - Radio-osteonecrosis (jaw) – treatment or prophylaxis
 - Soft tissue radiation injury
 - Problem wounds
- Emergency
 - Decompression sickness
 - Gas embolism (iatrogenic or diving accident)
 - Necrotising soft tissue infection
 - CO poisoning
- Semi-urgent
 - Sensorineural hearing loss
 - Central retinal artery occlusion
 - Graft

Chamber designs

- Multiplace chamber (Four compartments)
 - Main treatment lock
 - Entry/ exit lock
 - Second treatment lock
 - 6 ATA treatment lock
- Monoplace chamber



Elective Rx

- Three sessions a day
 - Mon to Fri
- Table 14:90:20
- Multiplace chamber
- 2 monoplaces

Workflow

Elective cases

- Consultation or referrals
 - HBOT indications
- Pre-HBOT assessment
- HBOT regime
- Test dive
- Review and follow-up
- Refer back for continuity of care

Osteoradionecrosis (ORN)

- Radiotherapy >60-70 Gy
- Prophylaxis against ORN
 - HBOT reduce risk from >70% to <30%
 - 20 sessions of HBOT before dental extraction + 10 post-op HBOT
- Established ORN
 - 40 Rx sessions
- Total Rx duration 6-8 w

Non-healing wounds

- Pre-HBOT assessment
 - Vascular status
 - TCOM
 - General (fitness for HBOT, DM control)
- HBOT 30-40 sessions
- Comprehensive wound management

Gas embolism

- 24/7 Emergency service
- Patient assessment
 - Likelihood of benefit
 - Retrieval risk and transport issue
- Liaison with ICU +/-and other units
- Urgent ENT consultation
- Notify A&E

COMPARTMENT 3



Diver assessment

- Certification of “Fitness to dive”
 - Recreational
 - Occupational
- Emergency hotlines providing divers with opinions on
 - Retrieval options
 - Emergency Rx

Future HBO service in NAH

1. Unit floor plan
 2. Chamber design
 3. Manpower & training
 4. Clinical indications
 5. Multi-disciplinary support
 6. International networking
- People-centred Care**
- Committed Staff**
- Professional Service**
- Teamwork**

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