Building Innovation and Expertise in a Remote Location

A.Prof Michael Penniment
The Allan Walker Experience
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Service Planning Stage

• Scope of region

• Consult community
  – No prejudice
  – Consider independent consultants
  – Don’t forget existing service providers to the region

• Focus on what patients need, not what doctors want
Service Planning Stage

- Set up critical path analysis
- Set up operations model
- Consider:
  - The organisational hierarchy
  - Relationships with regional health authority
  - Highlight Gaps early
Independent Expertise and Auditing
Building Expertise
First Treatment on 23rd March 2010
Alan Walker Multidisciplinary Team

- 1RO + 2 VMO ROs
- 1 RO Registrar
- 8 Radiation Therapists
- 3 Radiation Physicists
- 1 Full-time Engineer
- 2 Radiation Nurses
- 2 Admin/receptionist
- 0.8 Accountant
- 0.5 IT
- 1.0 Dietitian
- 0.5 ILO
- 0.2 Social Worker

Total FTE: 37 staff

- 2 MO
- 2 MO registrar
- 1 Nurse Manager
- 4 chemo Nurses
- 1 MDT Coordinator
- 1 Breast Care Nurse*
- 0.5 Nurse Educator
- 0.2 OT
- 0.5 Speech Therapist
- 1.0 Cancer Care Coordinator*
- 1.0 MDT Coordinator*
- Dental Service
- Cancer Council*
- 1 Clinical Trial nurse
- Physiotherapist (referral only)
CHEMOTHERAPY SUITE
Radiation Equipment

• **2 ELEKTA Synergy Linacs**
  6, 10, 18 MV and range of 6 energy electrons with 3D volumetric imaging + VMAT Arc Therapy

• **TOSHIBA 16-slice CT Simulator**

• **PINNACLE Planning System**
  – IMRT and Precise Beam Dynamic Arc
  – Remote Planning Access via the internet

• **MOSAIQ** – Electronic Operation system
  – Paperless and full remote Access
• **Set up sound strategy**
  – **Protocols** – clinical, QA etc
  – Plan and monitor treatment numbers
  – **Service prioritisation to NT patients with NO out of pocket charge**
  – **Technology**, eg IMRT implementation plan
  – 2 linear accelerators with scheduling to cover breakdown and maintenance
  – **Outcome assessments**
    • Survival, toxicity
    • Special, eg indigenous needs, failure to attend rates
    • Clinics provided
DAILY CBCT (with PTV only except breast)
IN 16 MONTHS

- 541 consultations
- 448 courses treated
- 7680 episodes
Very Low Waiting Time

Average Wait for Radical RT = 13.5 days

Average Wait for Palliative RT = 8.4 days
105 Aboriginal Patients

105 new patients seen
90 completed treatment
3 partially complete treatment

85% Compliance Rate

RT Utilisation Trend is improving
Indigenous disease percentage compared to non-indigenous
Ongoing Operations

• Advantage of small centre
  – Flexible
  – Adapt rapidly

  based on:
  • Independent control
  • Sound strategy

Consider DMAIC
  Define, Measure, Analyse, Improve, Control
Good Results → Good Relationships
Celebrate Uniqueness

- Indigenous focus – DVD September
- Isolation
  - Paperless
  - Citrix solutions planning
  - Rotations
- Opportunity to → trials, Anrotat etc
- Community Foundation
- Financial Model separate to usual vested interests
Helping Our Neighbour
Embrace any Opportunity to Audit

- Trials
- Independent expert review
- Rotation of staff
- Detects mistakes early and builds credibility
• **CanNet Program** (June 2009 to June 2012)
  - Improve outcomes and reduce disparities in rural, regional and remote Aus.

• **NT Cancer Plan** (2010 - 2010)
  - Prevention, Detection Treatment and Care

• **CCOG** (Cancer Care Optimisation Group)
  - Advisory Group to NT government
  - Identify strategies for both Acute and Primary sector
  - Implement Cancer plan

• **Patient Clinical Pathways and Journey**
  - Aboriginal DVD and Flip charts by CanNet
  - Information and Education for Practitioners and Patients (CanNet + EviQ)

• **NT Cancer Care Network**
  - promote network directory
cont:

- **AWCCC Initiatives**-
  - Teleconference Consult with Follow-up protocols for remote Patients
  - Improve Multidisciplinary Meeting
  - Develop Aboriginal DVD for Radiation Treatment and Chemotherapy at AWCCC
  - Conduct Clinical Trials
  - Establish Alan Walker Cancer Care Foundation
Holistic Cancer Care
Training AHW in Katherine
DRY JULY ($20K)
Conclusion

• Define core needs, preferably with independent review

• Plan – Health Department, Doctors, independent experts

• Fight to get needs of patients+ staff met before operations start

• Embrace any audit opportunity
Conclusion

- Radiation Oncology is unique cancer treatment, capital intensive, team focussed.

- Should RO providers to regions/networks be separate to ever changing local politics?

- What challenges/opportunities do the local networks create?