

#IMPSCI
COMMUNITY
OF PRACTICE

THE

MDT Symposium

MDTs: More Than
• Just A Meeting •



WELCOME + INTRODUCTION

PROF TIM
SHAW

DIRECTOR OF RESEARCH IN
IMPLEMENTATION SCIENCE AND
HEALTH GROUP, UNIVERSITY OF
SYDNEY

#IMPSCI
COMMUNITY
OF PRACTICE

THE MDT Symposium

MDTs: More Than
Just A Meeting



*Preparing to
take the next
step in your
MDT*

SETTING THE SCENE

PROF FRAN
BOYLE

MEDICAL ONCOLOGIST, DIRECTOR
THE PATRICIA RITCHIE CENTRE FOR
CANCER CARE AND RESEARCH,
MATER HOSPITAL

KEYNOTE PRESENTATION

DR LYNLEIGH
EVANS

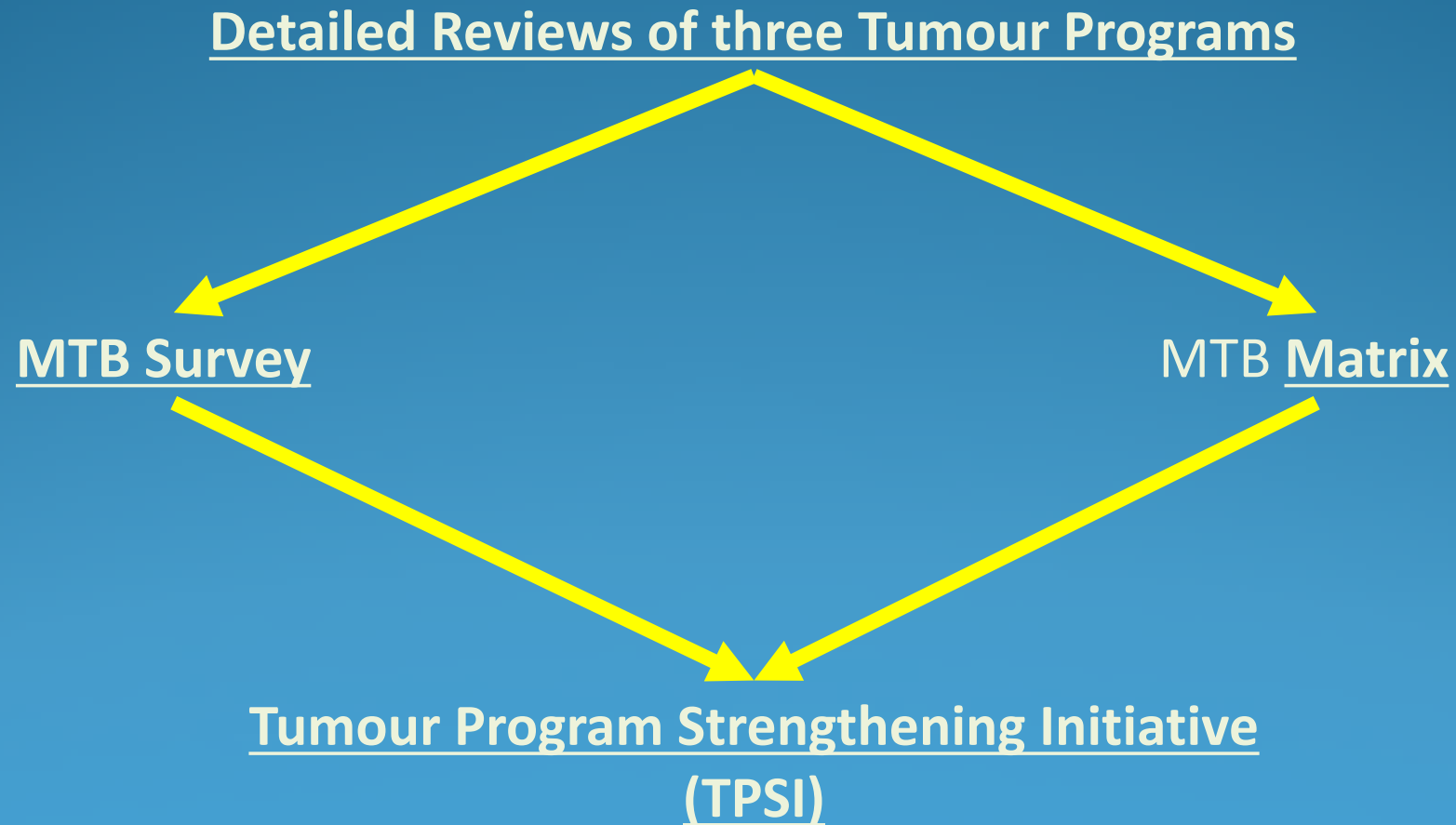
SENIOR MEDICAL ADVISOR
WESTERN SYDNEY LOCAL HEALTH
DISTRICT

*Optimising the
Role of the
MDT*

Sydney West Cancer Network Tumour Program Strengthening Initiative



Tumour Program Strengthening Initiative



Detailed Reviews

Background

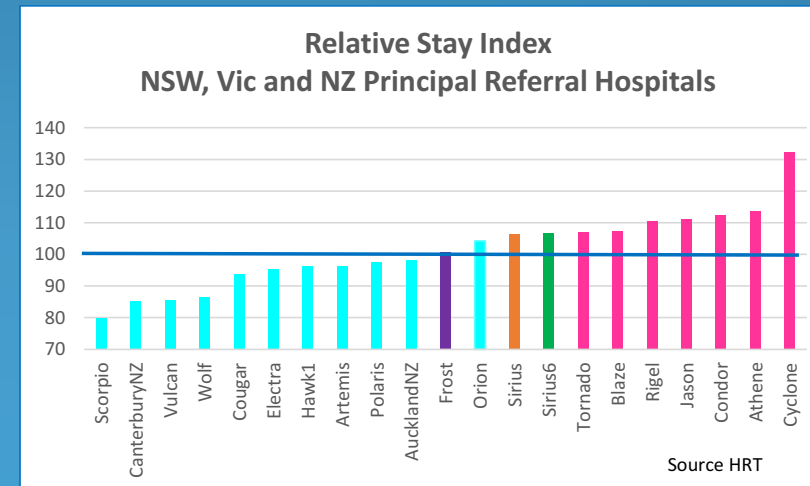
- Demographics
- Disease Overview
- Inflows and Outflows, % Public vs Private sector

Activity and Performance

- Performance against Peer Hospitals
 - Relative Stay Index (RSI)
 - LOS > 21 days
 - Standardised Mortality

Processes

- Identify Key stages
- Develop Process Map
- Identify Issues and Constraints for each step

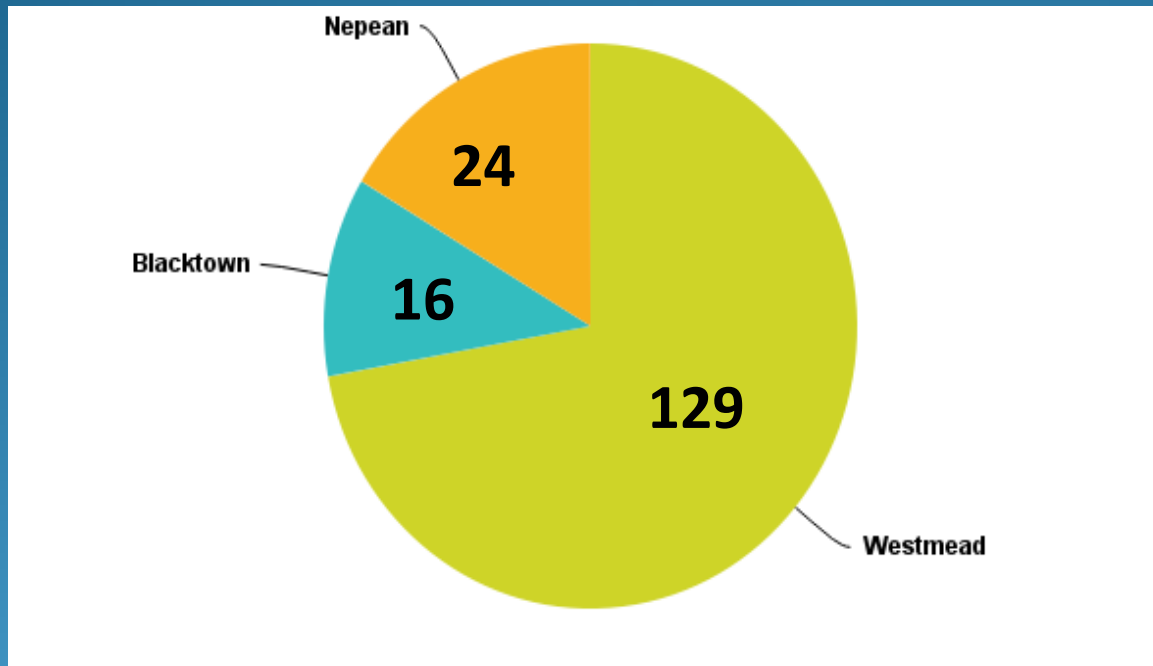


Survey



Background

Number of respondents



Respondents

78%	Medical
13%	Nursing
9%	Allied health, admin, clinical trials, biobank

Number of tumour Groups:

• Westmead	12
• Nepean	7
• Blacktown	2

Meeting Schedule

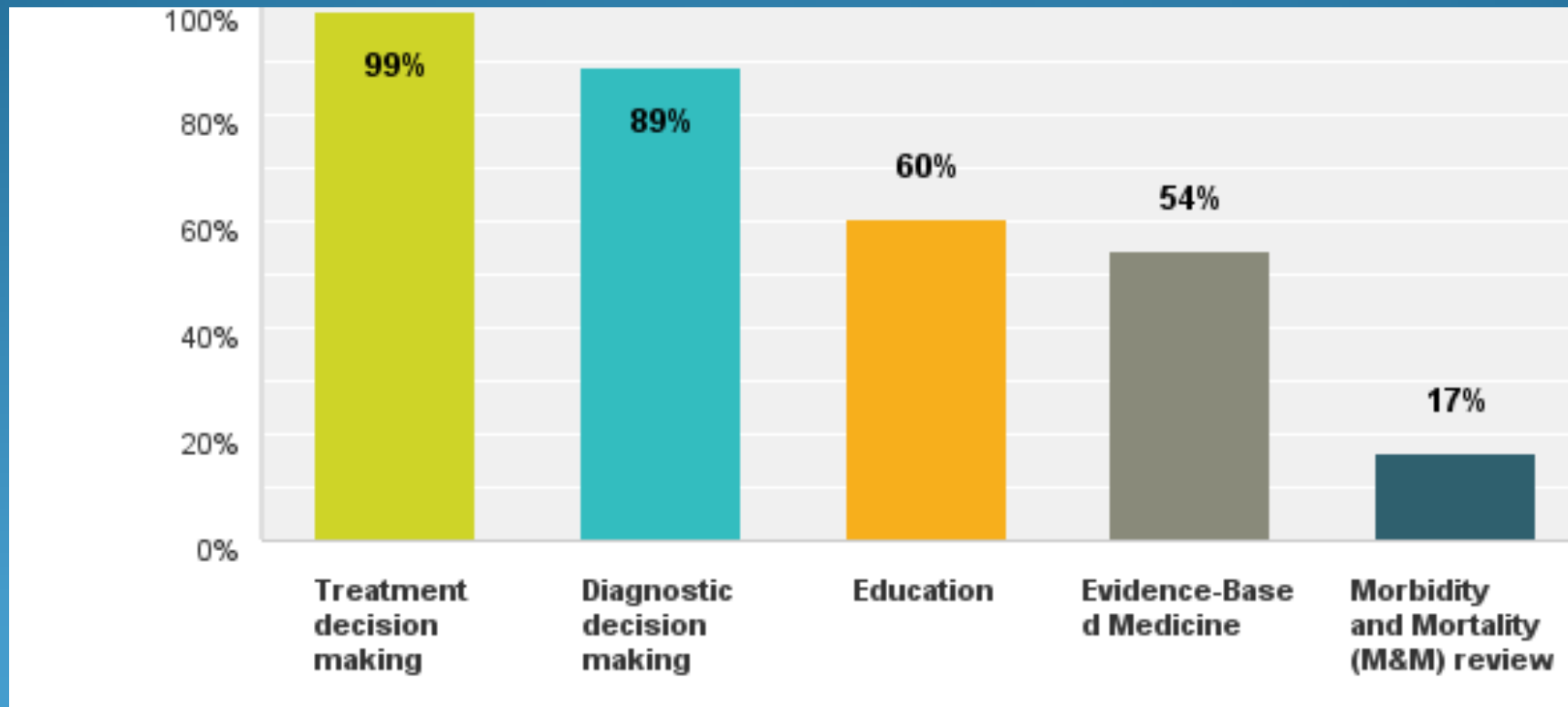
• Weekly	66%
• Fortnightly	31%
• More often	3%

Consultation length:

• < 5 mins	16%
• 5-9 mins	63%
• > 10 mins	19%

Q4: What is the purpose of the MDT meeting? Please select all that apply

Collated responses SWCN



24%

Believe there are established criteria to refer patients to MTBs

20%

Believe MTBs had terms of reference

62%

Believe MTBs usually or always follow clinical practice guidelines

45%

Stated patient preferences are incorporated into MTB discussions

<12%

MTBs had formal processes for informing the General Practitioner of outcomes

Q39: Respondents answering yes to the question asking if they collect the following information routinely

	SWCN (169)
Diagnosis	86
Site	85
Stage (TNM)	74
Treatment intent	77
Patient status (New/Follow up)	78
Presenting symptoms	65
Referrals	62

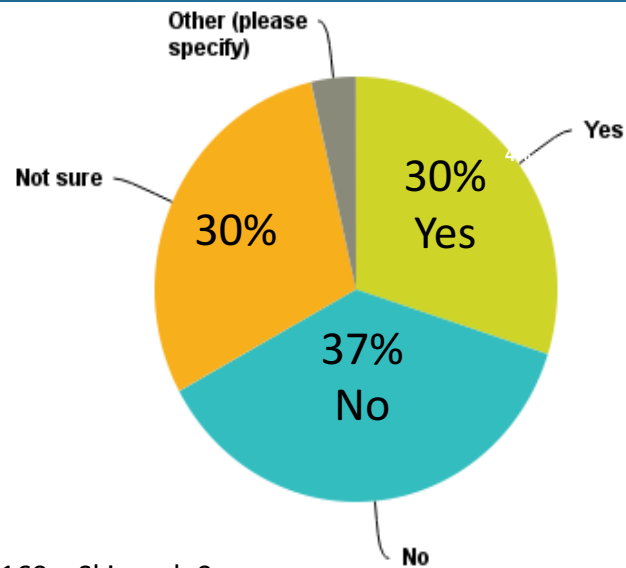
Q40: Respondents answering yes to the question asking if they collect the following data routinely

	SWCN (169)
ECOG status of patient	34
Time from diagnosis to active treatment	21
% of patients with the condition routinely seen by the MDM	18
% of patients seen by the MDM prior to active treatment	16
Whether the patient had validated psycho-oncology screening	4

MTB-SWCN Comparisons

- Organisation / logistics
- Decision making
- Patient and GP considerations
- Quality Improvement/ M&E/
Education/ Research

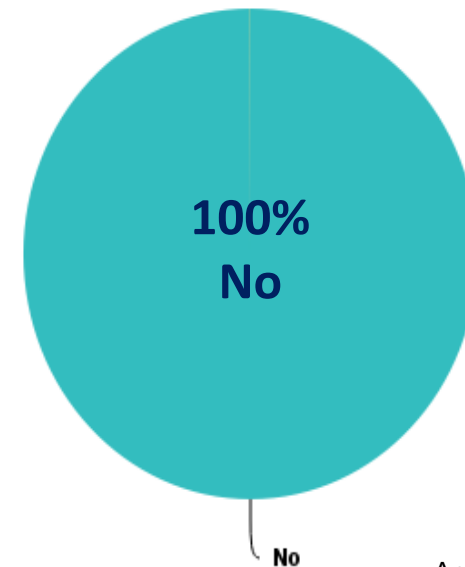
Q7: Are there established criteria for referral of patients to MDT meetings?



Answered: 169 Skipped: 0

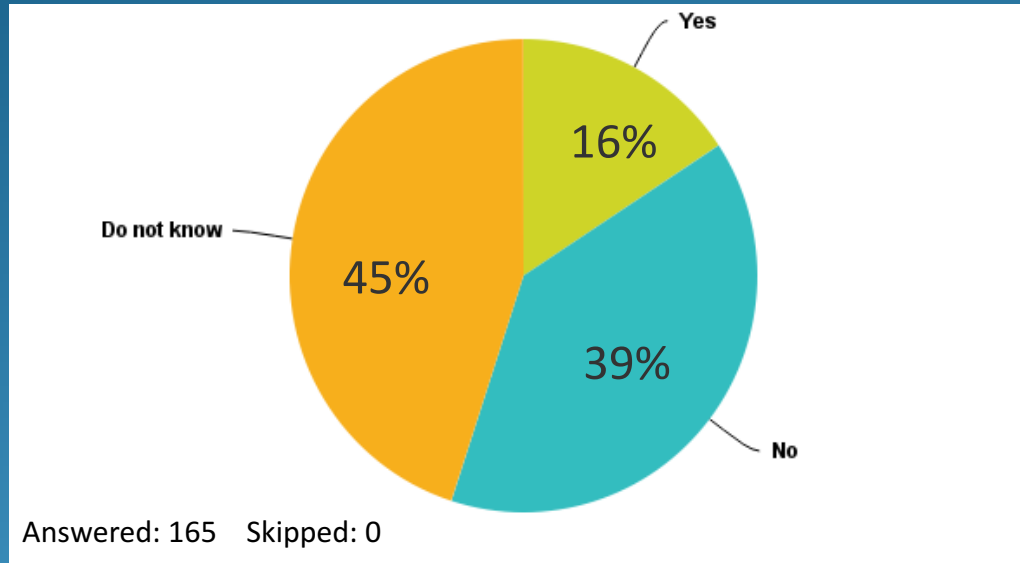
SWCN

MTB 5



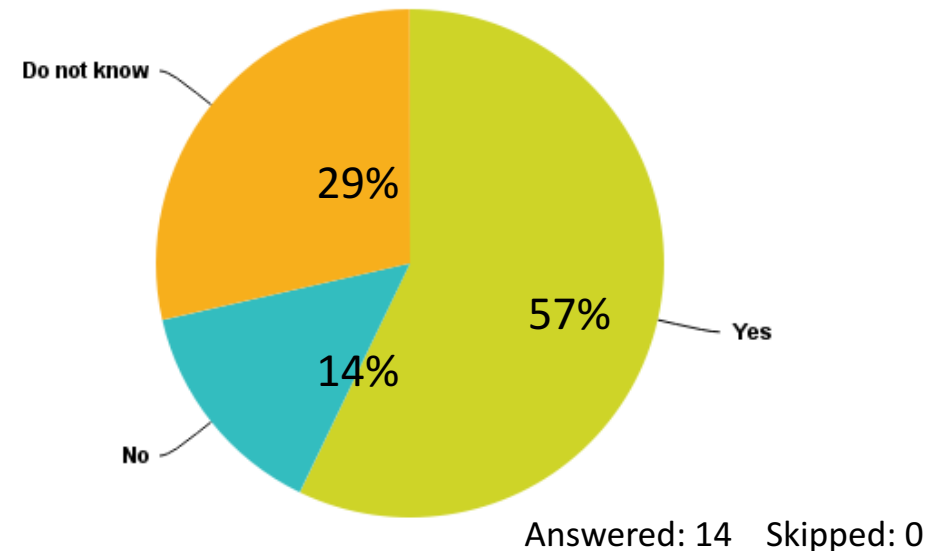
Answered: 11 Skipped: 0

Q38: Is there a follow-up process to check whether referrals from the MDT meeting are actually made?



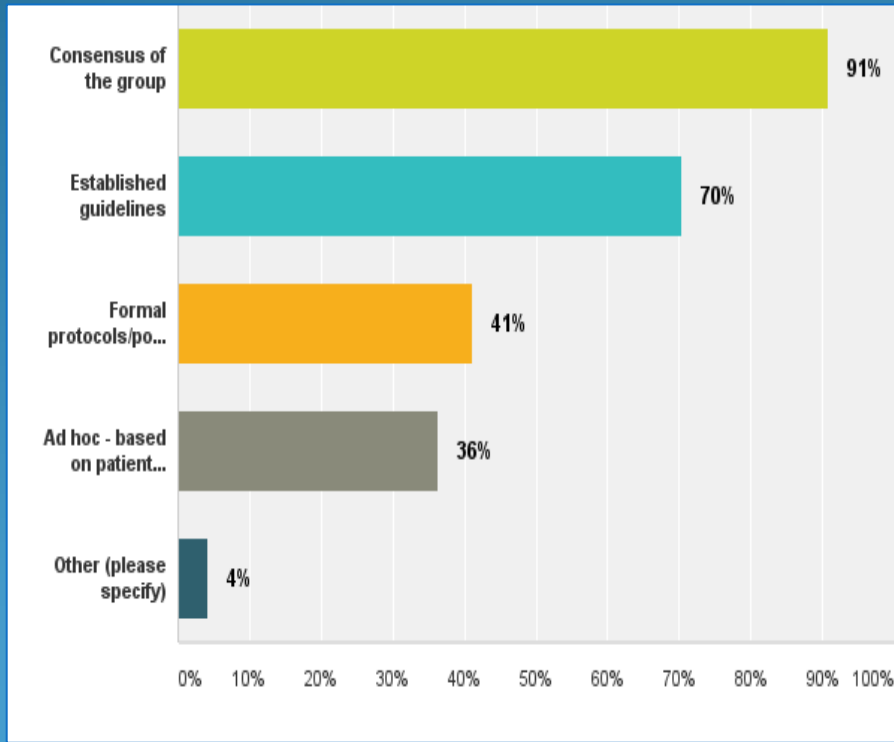
SWCN

MTB 10



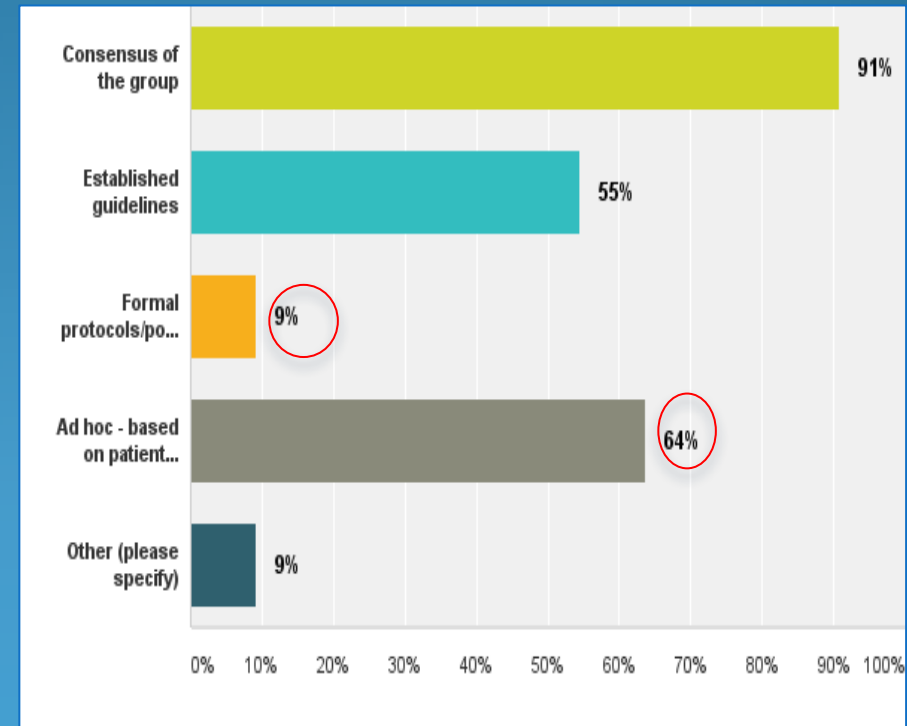
Q8: On what basis are treatment decisions made? Please tick all that apply.

SWCN



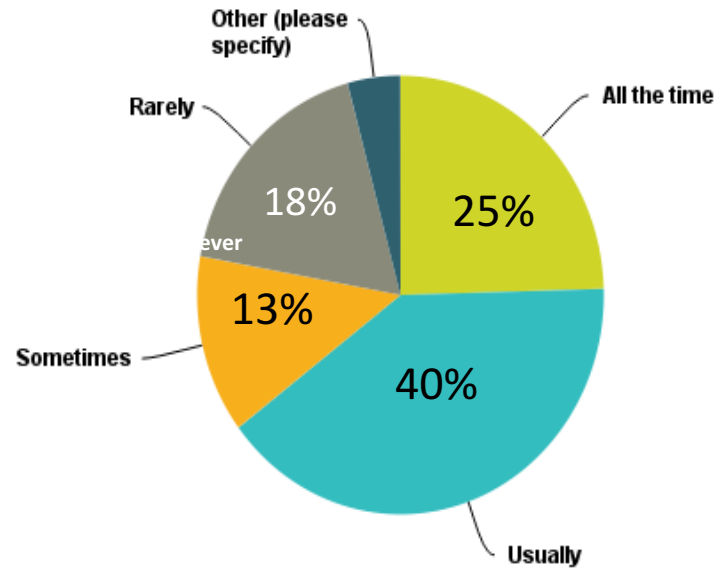
Answered: 165 Skipped: 0

MTB 6



Answered: 11 Skipped: 0

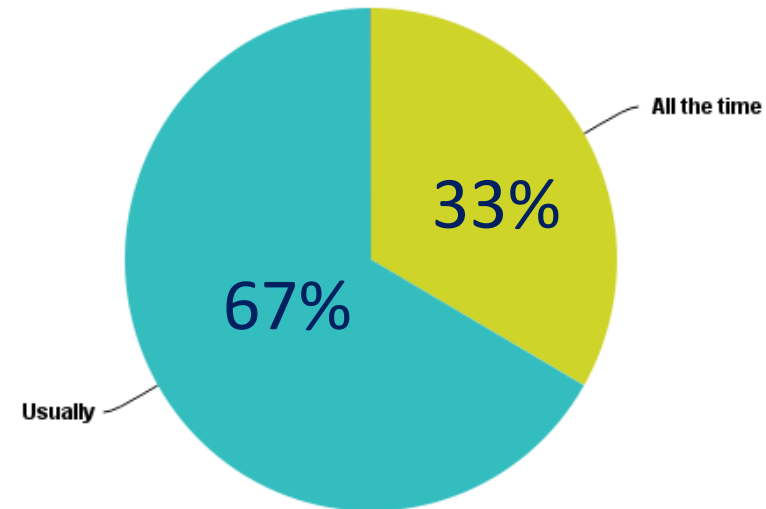
Q9: Does the MDT utilise Clinical Practice Guidelines or Standard Treatment Protocols relevant to the diagnosis, treatment and care of cancer patients?



Answered: 165 Skipped: 0

SWCN

MTB 1



Answered: 12 Skipped: 0

Comparison between Tumour Groups

KPIs: % of respondents giving positive response.

		SWCN	MTB 7	MTB 12	MTB 10	MTB 9	MTB 8	MTB 1	MTB 5	MTB 4	MTB 6	MTB 2	MTB 11
1	Does the MDM have a TORs or guidelines to guide the conduct of the meetings	42	30	25	43	10	9	33	20	0	0	0	0
2	Are there established criteria for referral of patients to MDM meetings? (yes/no)	21	70	50	43	50	50	17	0	0	9	10	10
3	Is there a follow-up process to check whether referrals from the MDM are actually made? (yes/no)	15	30	8	57	30	18	0	10	9	0	0	0
4	Does the MDM utilise Clinical Practice Guidelines or Standard Treatment Protocols relevant to the diagnosis, treatment and care of cancer patients? (always or usually)	65	80	69	65	80	82	100	30	45	54	44	30
5	Does the MDM routinely collect the time from diagnosis to definitive treatment. (yes/no)	21	20	31	14	33	0	0	0	0	0	0	0
6	Are internal audits conducted to confirm that treatment decisions match current best practice? (yes/no)	9	20	20	14	0	14	8	10	18	0	0	0

Workshop and Matrix



Overall Framework

5 Components	4 Subcomponents	5 Performance Levels				
		1 Basic	2	3	4	5 Superior
1. Governance and Leadership	<ul style="list-style-type: none"> • Leadership • Obligations of team members • Decision making • Risk management 					
2. Meeting Organisation and Logistics	<ul style="list-style-type: none"> • Logistics & representation • Pre-meeting • At meeting • Post-meeting 					
3. Linkages and Communication with GPs and Patients	<ul style="list-style-type: none"> • Access for GPs • Communication with GPs (patients) • Information & Education (general) • Patients 					
4. Infrastructure and Human Resources	<ul style="list-style-type: none"> • Facilities and equipment • MTB Coordination • Care Coordination • Data management 					
5. Data Collection, Analysis and Research	<ul style="list-style-type: none"> • Data collection • Analysis, Monitoring and reporting • EMR/ MTB Database • Research and education 					

Fig. 5		Level One: Basic	Level Two	Level Three	Level Four	Level 5: Superior
1. Governance and leadership						
1.1	Leadership	<ul style="list-style-type: none"> Chair appointed. Environment where dissenting opinions encouraged 	<ul style="list-style-type: none"> Terms of reference developed Lead clinician (LC) with appropriate skills and training appointed. Business/QI meetings instigated on at least quarterly basis 	<ul style="list-style-type: none"> Core leadership group established to sponsor reform. Good team dynamics with robust discussion and good timekeeping. LC proactively engages of all members including pall care, nursing, allied health. 	<ul style="list-style-type: none"> Expectations for private sector diagnostic engagement with MDM developed. Close collaboration between diagnostics services. 	<ul style="list-style-type: none"> The four Cs embedded in all interactions – communication, cooperation, coordination, cohesion. Credentialing with explicit code of conduct for private sector established.
1.2	Obligations of team member with respect to MDM	<ul style="list-style-type: none"> Core members attend over 70% of meetings Core members organise cover if not able to attend (one member from each discipline always in attendance). 	<ul style="list-style-type: none"> Members fully complete pre-meeting proforma when presenting patients for discussion (paper or electronic) Members actively prepare if their patient is being presented 	<ul style="list-style-type: none"> Members select patients according to agreed criteria All patients with agreed criteria are presented; Core members understand obligations and attend 80% of meetings. 	<ul style="list-style-type: none"> All patients not presented are registered New patients routinely discussed before definitive treatment 	<ul style="list-style-type: none"> All patients following consensus based pathways Members agree to follow pre-determined pathways for patients not being reviewed by MDM; Core members attend 90% of meetings
1.3	Decision making	<ul style="list-style-type: none"> Robust and open discussion 	<ul style="list-style-type: none"> Consensus decisions for all patients. Considerations of quality of life and supportive care included for all patients. 	<ul style="list-style-type: none"> Evidence based decision making – mostly following pre endorsed protocols 	<ul style="list-style-type: none"> Fully integrated and documented best practice clinical pathways including investigations being followed by all team members 	<ul style="list-style-type: none"> Regular audits of follow up care, particularly deviations from the MDM decision and whether decisions follow best practice guidelines
1.4	Risk management (Open disclosure)	<ul style="list-style-type: none"> Incidents raised through current IIMS process Doctors raise issues with Director on an ad hoc basis 	<ul style="list-style-type: none"> Regular tumour specific Mortality and Morbidity reviews (M&M) established Adverse events reviewed at Tumour program M&M 	<ul style="list-style-type: none"> Proactive seeking out and reviewing adverse events Members encouraged to identify adverse events and near misses in a no blame environment. 	<ul style="list-style-type: none"> Tumour board specific indicators developed to monitor and benchmark complications System to address near misses in no blame environment established 	<ul style="list-style-type: none"> Open disclosure of adverse events and near misses embedded in tumour program amid a no blame culture.

	Level One: Basic	Level Two	Level Three	Level four	Level Five: Superior
1. Governance and leadership					
1.1 Leadership	<ul style="list-style-type: none"> Chair appointed. Environment where dissenting opinions encouraged 	<ul style="list-style-type: none"> Terms of reference developed Lead clinician (LC) with appropriate skills and training appointed. Business/QI meetings instigated on at least quarterly basis 	<ul style="list-style-type: none"> Core leadership group established to sponsor reform. Good team dynamics with robust discussion and good timekeeping. LC proactively engages of all members including pall care, nursing and allied health. 	<ul style="list-style-type: none"> Expectations for private sector diagnostic engagement with MDM developed. Close collaboration between diagnostics services. 	<ul style="list-style-type: none"> The four Cs embedded in all interactions – communication, cooperation, coordination, cohesion. Credentialing with explicit code of conduct for private sector established.
1.2 Obligations of team member with respect to MDM	<ul style="list-style-type: none"> Core members attend over 70% of meetings Core members organise cover if not able to attend 	<ul style="list-style-type: none"> Members fully complete pre-meeting proforma when presenting patients for discussion (paper or electronic) Members actively prepare if their patient is being presented 	<ul style="list-style-type: none"> Members select patients according to agreed criteria All patients with agreed criteria are presented; Core members understand obligations and attend 80% of meetings 	<ul style="list-style-type: none"> All patients not presented are registered New patients routinely discussed before definitive treatment 	<ul style="list-style-type: none"> All patients following consensus based pathways Members agree to follow pre-determined pathways for patients not being reviewed by MDM; Core members attend 90% of meetings
1.3 Decision making	<ul style="list-style-type: none"> Robust and open discussion 	<ul style="list-style-type: none"> Consensus decisions for all patients. Considerations of quality of life and referral to supportive care included for all patients. 	<ul style="list-style-type: none"> Evidence based decision making – mostly following pre endorsed protocols 	<ul style="list-style-type: none"> Fully integrated and documented best practice clinical pathways including investigations being followed by all team members 	<ul style="list-style-type: none"> Regular audits of follow up care, particularly deviations from the MDM decision and whether decisions follow best practice guidelines
1.4 Risk management (Open disclosure)	<ul style="list-style-type: none"> Incidents raised through current IIMS process Doctors raise issues with Director on an ad hoc basis 	<ul style="list-style-type: none"> Regular tumour specific Mortality and Morbidity reviews (M&M) established Adverse events reviewed at Tumour program M&M 	<ul style="list-style-type: none"> Proactive seeking out and reviewing adverse events Members encouraged to identify adverse events and near misses in a no blame environment. 	<ul style="list-style-type: none"> Tumour board specific indicators developed to monitor and benchmark complications System to address near misses in no blame environment established 	<ul style="list-style-type: none"> Open disclosure of adverse events and near misses embedded in tumour program amid a no blame culture.

Conclusions and Future Directions



Conclusions

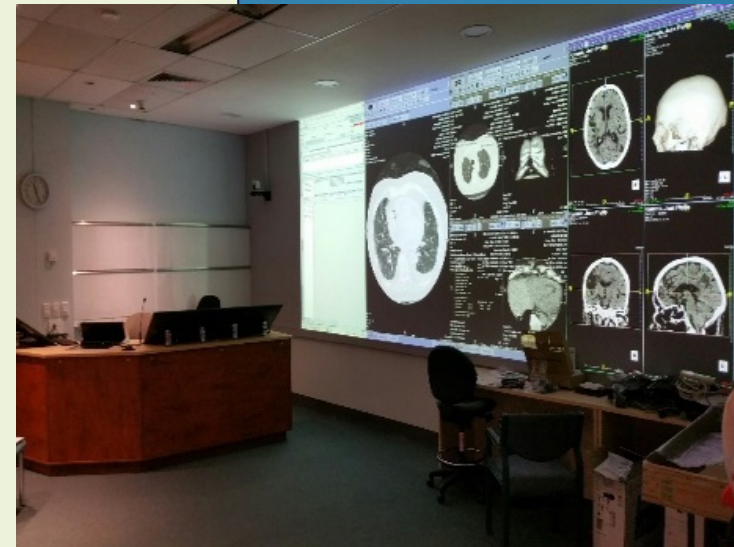
- Practical method to engage Tumour Streams at various stages of maturity
- Enthusiasm from Teams to strengthen performance
- Overall acceptance of survey and matrix

Tumour Program Strengthening Initiative (TPSI)

- Repeat Survey annually
- MTBs complete matrix annually
- MTBs to work on weaknesses identified through matrix and survey
- Management to identify and address priorities

SWCN Priorities for 2017

1. **MDT database and live data entry across the Board**
2. **MDT billing**
3. **Terms of Reference**
4. **Dedicated, Fit-for-Purpose Meeting room**
5. **Membership Database**



Thanks

- Paul Harnett
- Emma Clarke, Kylie Museth
- Admin, IT and clinical reporting staff
- All Members of the Tumour Programs
- Nicole Rankin for use of survey

Lynleigh.evans@health.nsw.gov.au

KEYNOTE PRESENTATION

DR NICOLE
RANKIN

SENIOR RESEARCH FELLOW
CANCER COUNCIL NSW +
SYDNEY CATALYST TRANSLATIONAL
CANCER RESEARCH CENTRE

#IMPSCI
COMMUNITY
OF PRACTICE



*Cancer MDT
meetings in
practice:*

*Results of a
descriptive survey
across 37 MDTs*



Cancer multidisciplinary team meetings in practice: Results of a descriptive survey across 37 MDTs

Nicole Rankin

Senior Research Fellow, Sydney Catalyst and
Cancer Council NSW

Michelle Lai, Danielle Miller, Philip Beale, Allan
Spigelman, Gabrielle Prest, Kim Turley, John Simes

Background

Sydney Catalyst TCRC study

Survey to scope MDT functioning across Sydney Catalyst member institutions

Multidisciplinary care is considered best practice in cancer Interchangeable terminology, often without defining the distinguishing features:

- multidisciplinary **care** (MDC) – overall approach to care
- multidisciplinary **teams** (MDTs) – clinical oncology team
- multidisciplinary **team meetings** – the actual ‘meeting’

Background

MDT **meetings** focus on

- *“an alliance of all medical and health care professionals related to a specific tumour disease whose approach to cancer care is guided by their **willingness to agree on evidence-based clinical decisions** and to **co-ordinate the delivery of care** at all stages of the process, **encouraging patients** in turn to take an **active role in their care.**”*

Aims

- Broad aims – document MDTs across sites, understand organizational and functional aspects, explore similarities and differences
- Specific aims – understand how evidence informs MDT practice

Methods

- Structured 40-item survey instrument, topics included:
 - meeting purpose, organisation, resources and documentation;
 - caseload estimates;
 - use of evidence and quality assurance;
 - patient involvement and supportive care needs;
 - strengths and weaknesses (open-ended items)
- Email invitation sent to MDT Chair
- If no response <two weeks, second team member invited
- Administered using SurveyMonkey

Methods

- Data analyses: descriptive and comparative statistics
- Tumour types grouped according to incidence data (AIHW)
 - >5000 cases classified 'common'
 - <5000 cases classified 'rare'
- ARIA Geographical classification of hospital sites
- Professional development activity grouped according to one survey item

Results

37 teams from 7 hospitals (100%)

- Metropolitan (30), Regional (7)
- Rare tumour meetings only in metropolitan hospitals

Completed by the

- MDT Chair/lead (62%)
 - (40% surgeons, 60% oncologists/other)
- specialist clinician (25%)
- specialist nurse (10%)
- data manager (3%)

	Total group (%)
'Common' cancer MDTs	N=26 (70%)
Urological	5 (14%)
Breast	4 (11%)
Gastro-intestinal/Upper Gastro-intestinal	4 (11%)
Colorectal	3 (8%)
Haematology	3 (8%)
Lung	3 (8%)
General oncology	3 (8%)
Radiotherapy/Palliative care	1 (3%)
'Rare' cancer MDTs	N=11 (30%)
Head and neck	2 (5%)
Neuro-oncology	2 (5%)
Liver	2 (5%)
Gynaecology	1 (3%)
Thyroid	1 (3%)
Sarcoma	1 (3%)
Pituitary	1 (3%)
Pelvic exenteration	1 (3%)
Total	N=37 (100%)

Results

Meeting purpose was reported as

- treatment (100%)
- diagnostic decision making (88%)
- education purposes (70%)

For most MDTs:

- dedicated meeting coordinator (95%)
- documentation was completed by coordinators/leads (57%), registrars (38%) or nurse coordinators (24%)

MDTs had

- Terms of reference (46%)
- Intake criteria (35%)

	Total group (%)
Basis of treatment decisions	
Consensus	92%
Guidelines	57%
Evidence-based medicine	32%
Individual clinician	19%
Patient factors	19%
Quality assurance or improvement activities	
Best evidence-based guidelines and research are referenced	65%
Review/follow up of patient outcomes	57%
Review/follow up of unexpected morbidity or mortality	27%
Professional development activities	
Reports from medical or scientific meetings	54%
Recent research results discussed/presented	51%
Registrar presentations	35%

Results

We found few differences across team:

Quality assurance: rare cancer MDTs were significantly more likely to review patient outcomes than **common cancer** MDTs (82% vs 38%, $p=0.016$)

Research evidence: Metropolitan MDTs were significantly more likely to present or discuss recent research results compared with **regional** MDTs (60% vs 14%, $p=0.029$)

Professional development: MDTs who engaged in professional development activities were significantly more likely to name **collaboration** as a strength for those MDT who did not engage in professional development (86% vs 67%, $p=0.019$)

	Total group (%)
Basis of treatment decisions	
Consensus	92%
Guidelines	57%
Evidence-based medicine	32%
Individual clinician	19%
Patient factors	19%
Quality assurance or improvement activities	
Best evidence-based guidelines and research are referenced	65%
Review/follow up of patient outcomes	57%
Review/follow up of unexpected morbidity or mortality	27%
Professional development activities	
Reports from medical or scientific meetings	54%
Recent research results discussed/presented	51%
Registrar presentations	35%

Results

Most MDTs did not conduct internal audits to confirm that treatment decisions reflected best-practice (78%)

About one-third of MDTs were able to estimate caseload:

Raises issues about evidence

	Proportion of teams who answered item	Mean (N)	Median (N)	Range (min-max)
Total tumour caseload in the past 12 months	17/37 (46%)	336.7	250	60-1000
Total number of patients discussed at the MDT in the past 12 months	27/37 (73%)	244.5	200	85-600
Estimated proportion of patients presented at MDT who were newly diagnosed (within the last 12 months).	23/37 (62%)	67.8	70	10-100
Team answering all three items	14/37 (38%)			

Discussion

- First Australian study to focus on evidence use in MDT decision making across multiple tumour types
- Most teams base treatment decision making primarily on consensus, with guidelines and other evidence sources playing a role in informing consensus-driven processes.
- Most meetings include professional development on a regular basis, collegiality appears to be highly valued.
- Few differences within groups (common vs. rare; metro vs. urban)

Acknowledgements

- Manuscript undergoing revisions for *Asia-Pacific Journal of Clinical Oncology*
- Thanks to all our participating sites and staff
- Karen Gorzinska
- Liz Connolly

AFTERNOON TEA

3:05 - 3:20 PM



<https://tinyurl.com/mdtsurvey>

Sustainable quality improvement in a Lung Cancer MDT

KEYNOTE PRESENTATION

BARBARA
PAGE

RESEARCH AND QUALITY MANAGER
THE PRINCE CHARLES HOSPITAL/UQ
THORACIC RESEARCH CENTRE



Sustainable quality improvement in a Lung Cancer MDT

Thursday 22nd June 2017.

Barbara Page, The Prince Charles Hospital/UQ Thoracic Research Centre

Kwun M Fong, The Prince Charles Hospital / UQ Thoracic Research Centre

Outline of presentation

- Sustainability in context of service improvement
- TPCH Pulmonary Malignancy Conference(PMC)
- Cancer Australia National Lung Cancer Demonstration Project -5 principles
- Optimal Cancer Pathways_ lung cancer
- Barriers impacting sustainability of service improvements.
- TPCH PMC experience

Sustainability

Health professionals:

Continuous service improvement supports rather burdens clinicians to deliver best practice cancer care.

Cost Effective:

Continuous service improvement considers the efficient use of current resources.

Organisation_ the MDT can identify with one or more of the strategic directions of the health organisation



The Prince Charles Hospital

PULMONARY MALIGNANCY CONFERENCE

A Lung Cancer MDT

RESPIRATORY INVESTIGATION UNIT

THE PRINCE CHARLES HOSPITAL.

3rd April 1981.

Memorandum to : Dr. G. Hawson,
THE PRINCE CHARLES HOSPITAL

Re: Combined Lung Cancer Consultative Clinic.

The first meeting of the Lung Cancer Committee Clinic will be held in the Seminar Room at 1.00 p.m. on Tuesday 14th April. Its purpose is to provide a forum where representatives of the different specialities can discuss and plan the management of patients with pulmonary malignancies.

The group will offer either their opinion regarding management or will actually arrange for the management to be carried out by the appropriate unit, whichever is requested.

As many patients as possible should be presented, even though some will not require much discussion. The role of the original consultant in the patient's long term management should not change from the present situation. Preferably the patient's consultant should present the case to the meeting but he may deputise his registrar or R.M.O.. The management plan should be documented in the patient's notes at the conclusion of the discussion.

SR

for Paul Zimmerman
Medical Director



AERIAL VIEW OF THE CHERMSIDE HOSPITAL

Thoracic Medicine

- Pat Aldons
- Rayleen Bowman
- Andrew Burke
- James Douglas
- Kwun Fong
- Steven Leong
- Henry Marshall
- Philip Masel
- Peter Robinson
- Dan Smith
- Ian Yang

Thoracic Surgery

- Morgan Windsor
- Rishendran Naidoo

Radiology

- Patrina Campbell
- Taryn Reddy

Medical Oncology

- Brett Hughes
- Zarnie Lwin

Radiation Oncology

- Ben Chua
- Gary Pratt

Anatomical Pathology

- David Godbolt
- Shilpi Gupta
- Kayla Tran
- John Pauli

Nuclear Medicine

- Joseph Lee
- David Rose

Palliative Care

- Patricia Treston
- James Stevenson

Psychology

- Tricia Rolls
- Alyssa Ryan
- Victoria Burrows

Social Work

- Hannah Porter

Specialist Nursing

- Melanie Hollan LLDN
- Petula Fonceca CCC
- Susan Mannion Palliative Care

PMC Coordinators / Research Nurses

- Jaccalyne Brady
- Elizabeth McCaul
- Linda Passmore

Administration support

- Leah Chapman

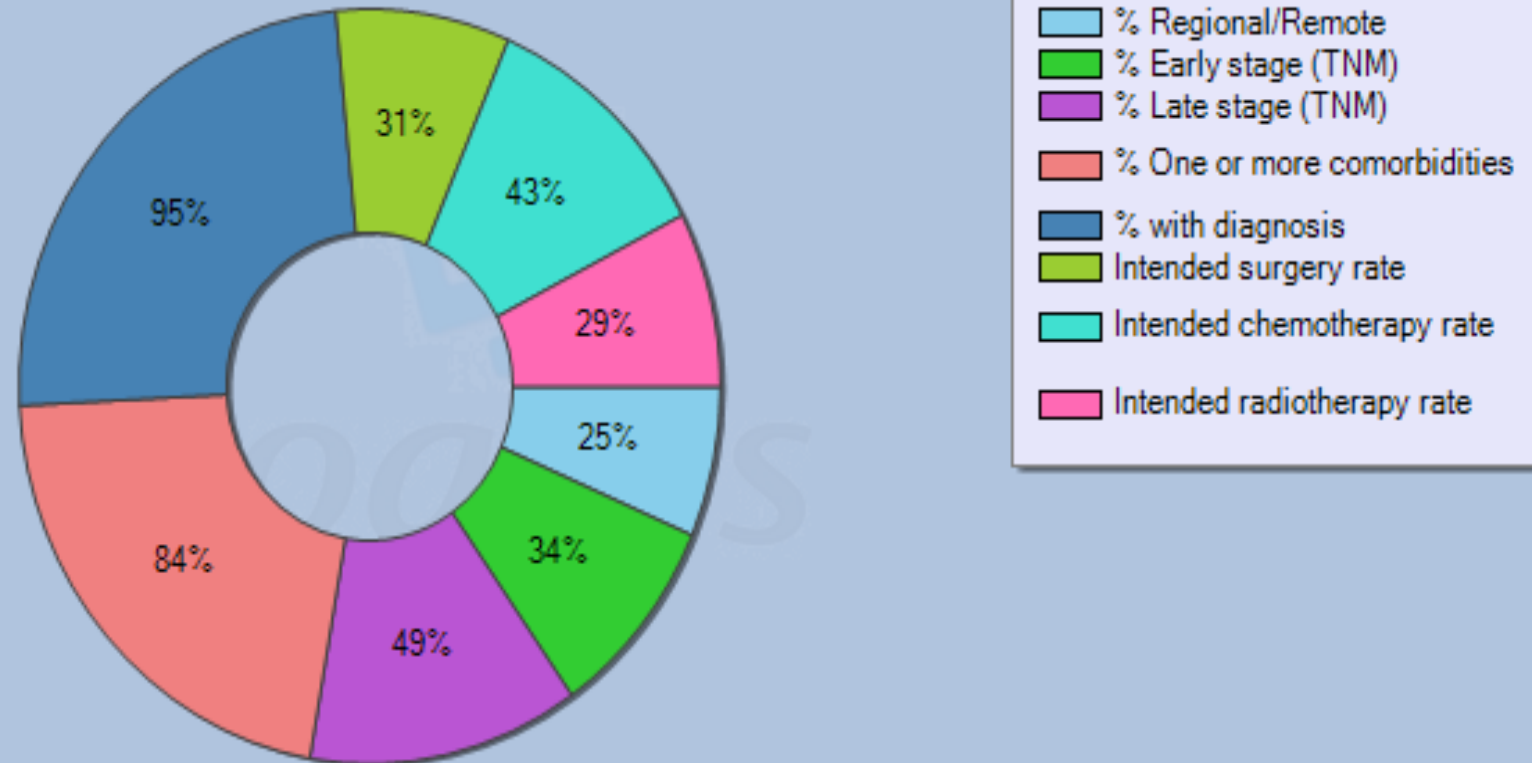
Pulmonary Malignancy Conference

1239 patients 2013-2016

View data from MDTs

% Regional/Remote, % Early stage (TNM), % Late stage (TNM), % One or more comorbidities, % with diagnosis, Intended surgery rate, Intended chemotherapy rate and Intended radiotherapy rate for by MDT

Conference - Date: 2013, 2014, 2015, 2016





Australian Government

Cancer Australia

Cancer Australia Best Practice Principles

Principle	Description
Principle 1: Patient-centred care	Patients with lung cancer and their carer(s) are the focus of best practice lung cancer care
Principle 2: Timely access to evidence-based pathways of care	Best practice pathways are in place to support timely diagnosis and staging of lung cancer; and appropriate treatment, supportive, follow-up and palliative care are in place
Principle 3: Multidisciplinary care	Multidisciplinary care is the standard of care for all lung cancer patients
Principle 4: Coordination, communication and continuity of care	All relevant health professionals, including GPs, provide coordinated delivery of care across the lung cancer continuum of care
Principle 5: Data-driven improvements in lung cancer care	Lung cancer data are collected, monitored and reviewed regularly to support continuous improvement in the delivery of best practice lung cancer care

Optimal care pathway for
people with lung cancer



Expert working group:

Mr Stephen Barnett

Dr Peter Briggs

Ms Elizabeth Dillon

Professor Jon Emery

Dr Malcolm Feigen

Dr Maria Ftanou

Dr Raj Hegde

Mr Cheng-Hon Yap

Dr Cameron Hunter

Dr Cynleen Kai

Dr Scott King

Ms Nicole Kiss

Mr David McCormick

Ms Angela Mellerick

Dr Greg Mewett

Associate Professor Paul Mitchell

Dr Graham Piston

Ms Lucy Stephenson

Dr Craig Underhill

Professor Robert **Thomas**

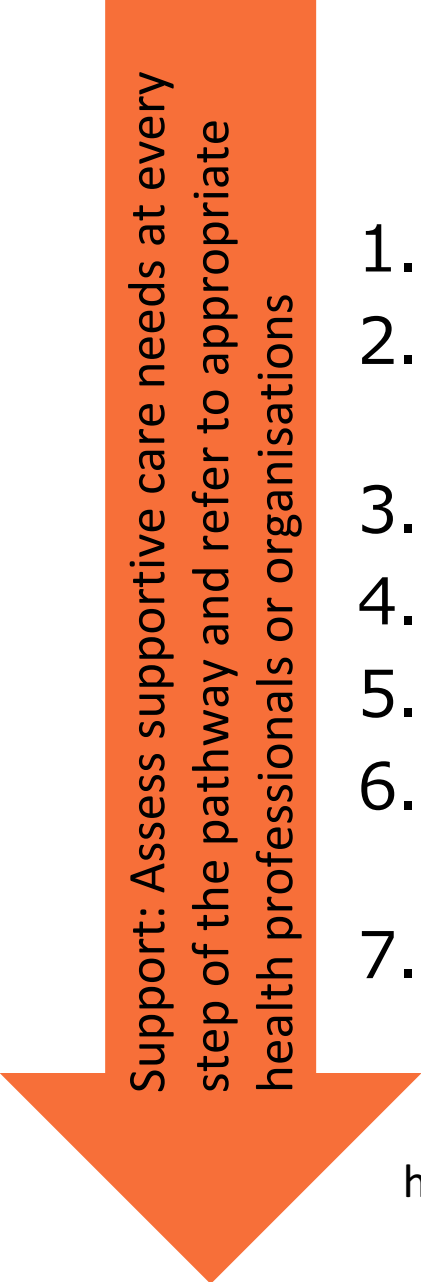
Alexandra **Viner (nee Philpott)** Project
Manager

Kwun Fong; The Prince Charles Hospital /
UQ Thoracic Research Centre

The intent of the optimal care pathways

- An educational tool, audit tool, for gap analysis
- Provides a mandate for service improvement
- A standard to aspire to – the optimal pathway
- Aligns with key service improvement priorities
- Engaging clinicians, GP awareness
- Consumer versions to assist patients and carers navigate the care pathway and empower them to ask the right questions.

Pathway Steps



Support: Assess supportive care needs at every step of the pathway and refer to appropriate health professionals or organisations

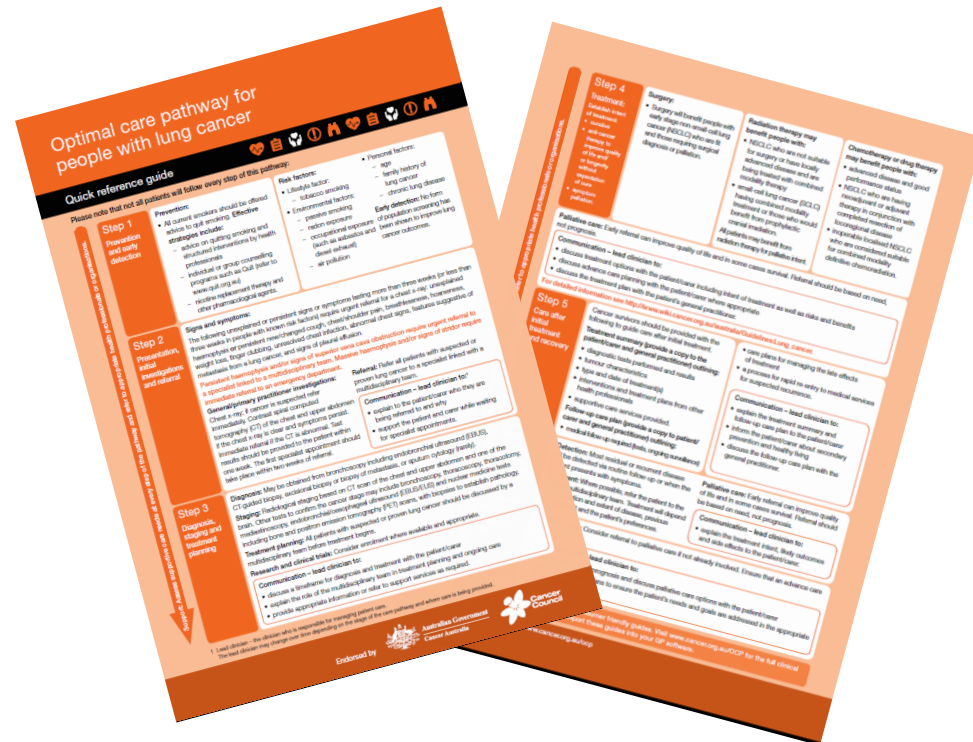
1. Prevention and early detection
2. Presentation, initial investigations and referral
3. Diagnosis, staging and treatment planning
4. Treatment
5. Care after initial treatment and recovery
6. Managing recurrent, residual, or metastatic disease
7. End-of-life care

National Lung Cancer Alliance

- Please join the **Alliance to support the implementation of the Lung Cancer Optimal Care Pathway.**

- **Email:**

- Kwun.fong@health.qld.gov.au
- Barbara.page@health.qld.gov.au



IDENTIFYING GAPS IN SERVICE

Aligned with the 5 best practice principles and the Optimal Care Pathway for lung cancer.

Know your service

- Patient demographic and flows
- Referral pathways both internal and external
- Multidisciplinary team members and disciplines
- Communication processes, documentation, data collection
- Involvement of GPs

Monitoring lung lesion referrals



24/03/2017; 12:23:09 AM

Welcome to the
Thoracic Medicine Tracker

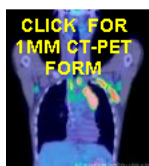


HELLO fongk!

- partner with our patients to provide high quality health care;
- enable, support and professionally develop our staff; and
- engage with our partners to improve the patient experience

NEW patient

FIND a patient



LOG OUT

PCLTHORFON
PCLTHORFONP
PCLTHORCAFON
PCLTHORPPC
PCLTHORPPC
PCLTHORBOW
PCLTHORMAS

Email date	Cat date	Days from email to CAT	Days from CAT to FSA	HOME SCREEN	Pt surname	Pt firstname	UR no	Pt DOB	Consultant	Date Ref Received	LLDN Date Received	Date of first contact	FSA_date	Time to FSA
19/01/2016	19/01/2016	0	14	2015	Dec					27/12/2015	5/01/2016	8/01/2016	2/02/2016	37
7/01/2016	7/01/2016	0	5	2016	Jan					06.01.2015	7/01/2016	8/01/2016	12/01/201	?
7/01/2016	7/01/2016	0	5	2016	Jan					05/01/2016	7/01/2016	8/01/2016	12/01/201	7
24/12/2015	24/12/2015	0	32	2015	Dec					21/12/2015	21/12/2015	8/01/2016	25/01/201	35
11/01/2016	12/01/2016	1	6	2016	Jan					5/01/2016	7/01/2016	13/01/2016	18/01/201	13
11/01/2016	12/01/2016	1	7	2016	Jan					6/01/2016	8/01/2016		19/01/201	13
11/01/2016	12/01/2016	1	6	2016	Jan					6/01/2016	8/01/2016	22/01/2016	18/01/201	12
11/01/2016	12/01/2016	1	1	2016	Jan					08/01/2016	11/01/2016	12/01/2016	13/01/201	5
12/01/2016	12/01/2016	0	20	2016	Jan					07/01/2016	12/01/2016		1/02/2016	25
15/01/2016	15/01/2016	0	6	2016	Jan					13/01/2016	14/01/2016	20/01/2016	21/01/201	8
15/01/2016	15/01/2016	0	4	2016	Jan					13/01/2016	15/01/2016	12/01/2016	19/01/201	6
19/01/2016	19/01/2016	0	14	2016	Jan					15/01/2016	18/01/2016	25/01/2016	2/02/2016	18
19/01/2016	19/01/2016	0	9	2016	Jan					7/01/2016	18/01/2016	20/01/2016	28/01/201	21
19/01/2016	19/01/2016	0	8	2016	Jan					04/01/2016	15/01/2016	20/01/2016	27/01/201	23

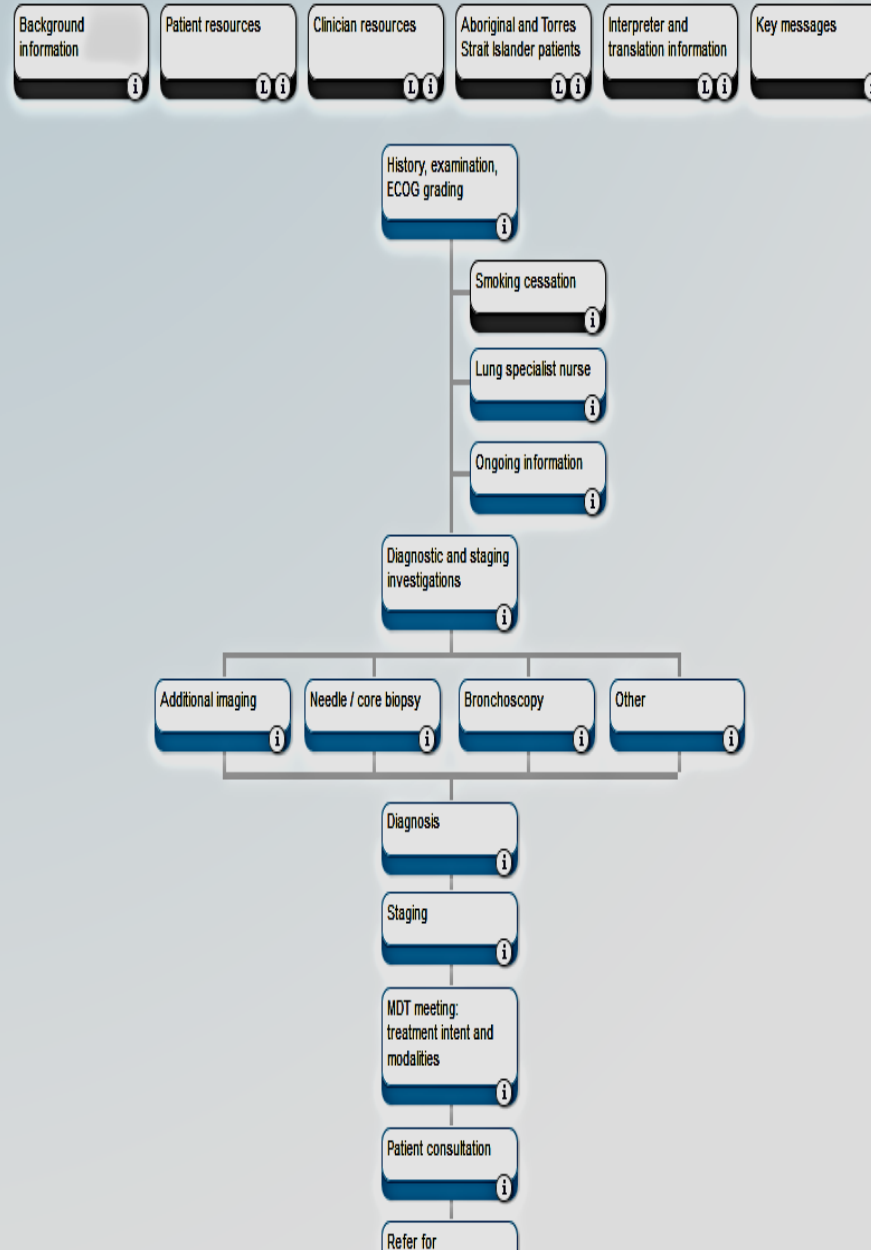
Lung cancer - specialist assessment and diagnosis



This care map has been locally developed for use in MetroNorthBrisbane

Key

- More information
- Referral
- National info
- Local info
- Notes
- Secondary care
- Information



Background information

Quick info Notes

Scope:

- specialist assessment, diagnosis and staging by appropriate lung cancer multidisciplinary team
- diagnostic workup
- patient information and supportive care needs throughout the diagnostic care phase

Out of Scope:

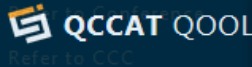
- primary healthcare management of suspected lung cancer
- detailed management of lung cancer types and sub-types
- mesothelioma
- population screening and prevention

Print care point (PDF)

Data collection

- Data bases – simple as an excel spreadsheet or purpose built
- Real time MDT meeting data collection
- Can help inform funding requirements
- Audit and monitoring purposes
- Research activities
- Education

Queensland Oncology Online



Refer to CCC

Patient

- Demographics
- Psychosocial Care
- Geriatric Oncology
- Youth Cancer
- Death
- Previous Presentations
- Other Profiles

Profile - Lung

- Clinical Data
- Investigations
- Diagnosis / Staging
- Recurrence
- Follow Up
- Presentation

Treatment

- Surgery
- Systemic Therapy
- Radiotherapy
- Clinical Trials

Conference

- Manage Conferences
- View Conference
- Start Conference
- Summary Letter

Conference Presentation Lung - Mozilla Firefox

https://qccat.health.qld.gov.au/QOOL/PresentationLayer/ProtectedPages/ConferencePresentationPages/ConferencePresentationLung?print=false

Test, Test Test

16/11/1993 (23yrs)
Female
Kirra 4225

Tumour Symptoms (mths) <p>Dyspnoea Haemoptysis</p>	Physical Signs	Comorbidities <p>Nil</p>	Prognostic Factors <p>ECOG 0</p>	Cancer History <p>Primary NSCLC 3/06/2015</p>	Psychosocial Wellbeing <p>History of depression or mental health issues History of stressful life events</p>
			Smoking <p>Unknown Smoking History</p>	Other Factors	

Radiology Results <p>CT - Chest + 11/06/2015 PET - Thoracic + 15/03/2017</p>	Diagnostic Test Results <p>Bronch - Histo + 12/06/2015</p>	Respiratory Function	Blood Results
---	---	-----------------------------	----------------------

Tumour & Histology <p>Diagnosis Primary NSCLC Morphology Adenocarcinoma NOS Diag Date 15/06/2015 Diag Basis Histo of Primary Tumour Laterality Right Size 12mm</p>	Staging at Diagnosis <p>Clinical T1a N0 M0 IA</p> <div>Molecular Tests<p>ALK + 30/03/2016 EGFR + 30/03/2017</p></div>	Recommended Treatment <p>Primary Tumour Surgery Intent Curative</p>	Recurrence <p>1st Recurrence Date 29/03/2017 Regional Supraclavicular - Ipsilateral Treatment Intent Chemotherapy Palliative</p>
---	--	--	--

Clinical Notes

Action Items

Surgery Summary <p>Procedure Lobectomy of lung Date 18/06/2015</p>	Radiotherapy Summary	Systemic Therapy Summary
---	-----------------------------	---------------------------------

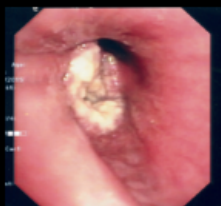
MDT Tool – collaboration – agreed plan

Chair Marshall
3/02/2017

TESTER, Windy
UR 000000
DOB 19/07/2014

Team: Orange

*Initial new
Is SBRT indicated?*



Larger Photo

Today's agenda

HOME SCREEN

Print chart copy

Thor
Med

SOB and has COPD

Med
Image

Needs extra imaging

Nuc
Med

May be malignant or may not on PET

AnMol
Path

Need more cells, not enough tissue

Thor
Surg

can they can climb stairs?

Rad
Onc

Happy to see to discuss!

Med
Onc

Should see an Oncologist!!

Pall
Care

Please refer to catchment!

Nurse
Allied
Health

might be depressed

☐ EGFR tested ☐ ALK tested Clin Path ☒ Lymphangitis ☐ Synchronous tumour

Unknown

Histotype Not Determined

☐ RUL ☐ RLL ☒ LUL ☐ LLL ☒ Other
☐ RML ☐ Right lung ☐ Lingula ☐ Left lung



cT3 N2 M1a
pT4 N2a2 M1b

PATIENT

Diagnosis Status ☐ Aware suspected Ca ☐ Unaware
☐ Aware Ca diagnosed ☒ Unknown

? depression /
mental health Hx ☐ Yes ☐ No

Preferences ☒ Known ☐ Unknown

Rx

Intent ☐ Curative ☐ Palliative ☒ Unknown

Sequence Other


Clinical Trial
available? ☒ Unknown ☐ None presently
☐ Yes ☐ Declined

Comments Needs referral letter else no
appointment!


Organisation
Referral Team

☐ Current Home Team ☐ Other
☒ PMC Presenter

MDT Tool – realtime TNM

HOME SCREEN		Windy TESTER 000000 19/07/2014	Case Summary	Today's agenda	Copyright © 2013 TiorMed_UQTRC 
Clinical	Pathological				
<input type="radio"/> Tx	<input type="radio"/> Tx	Primary cannot be assessed, or mal cells in sputum/washings but not visualized by imaging or bronchoscopy			cT3 N2 M1a pT4 N2a2 M1b
<input type="radio"/> T0	<input type="radio"/> T0	No evidence of primary tumour			
<input type="radio"/> Tis	<input type="radio"/> Tis	Carcinoma in situ			
<input type="radio"/> T1	<input type="radio"/> T1	3 cm or less, surrounded by lung or visceral pleura (i.e. not in the main bronchus)			
<input type="radio"/> T1mi	<input type="radio"/> T1mi	Minimally invasive adenocarcinoma			
<input type="radio"/> T1a	<input type="radio"/> T1a	1 cm or less			
<input type="radio"/> T1b	<input type="radio"/> T1b	> 1 cm but ≤ 2 cm			
<input type="radio"/> T1c	<input type="radio"/> T1c	> 2 cm but ≤ 3 cm			
<input type="radio"/> T2	<input type="radio"/> T2	> 3 cm but ≤ 5 cm; or involves main bronchus, but not carina, invades visceral pleura, Atelectasis or obstructive pneumonitis extends to hilar, involving part or all of the lung			
<input type="radio"/> T2a	<input type="radio"/> T2a	> 3 cm but ≤ 4 cm			
<input type="radio"/> T2b	<input type="radio"/> T2b	> 4 cm but ≤ 5 cm			
<input checked="" type="radio"/> T3	<input type="radio"/> T3	> 5 cm but ≤ 7 cm, or invades chest wall (including parietal pleura and superior sulcus tumours), phrenic nerve, parietal pericardium; or separate tum nodule(s) in same lobe as primary			
<input type="radio"/> T4	<input checked="" type="radio"/> T4	> 7 cm, or invades diaphragm, mediastinum, heart, great vessels, trachea, rec. laryngeal n., oesophagus, vertebra, carina; or separate tum nodule(s) different ipsilateral lobe to primary			
<input type="radio"/> Nx	<input type="radio"/> Nx	Regional LNs cannot be assessed			
<input type="radio"/> N0	<input type="radio"/> N0	No regional LN metastasis			
<input type="radio"/> N1	<input type="radio"/> N1	Metastasis in ipsilateral peribronchial and/or ipsilateral hilar LN s and intrapulmonary nodes, including involvement by direct extension			
<input type="radio"/> N1a	<input type="radio"/> N1a	Optional (single station N1)			
<input type="radio"/> N1b	<input type="radio"/> N1b	Optional (multiple station N1)			
<input checked="" type="radio"/> N2	<input type="radio"/> N2	Metastasis in ipsilateral mediastinal and/or subcarinal LN (s)			
<input type="radio"/> N2a1	<input type="radio"/> N2a1	Optional (single station N2 without pN1 involvement),			
<input type="radio"/> N2a2	<input checked="" type="radio"/> N2a2	Optional (single station N2 with pN1 involvement)			
<input type="radio"/> N2b	<input type="radio"/> N2b	Optional (multiple station N2)			
<input type="radio"/> N3	<input type="radio"/> N3	Metastasis in contralateral mediastinal, contralateral hilar, ipsilateral or contralateral scalene, or supraclavicular LN(s)			
<input type="radio"/> Mx	<input type="radio"/> Mx	Unable to assess			
<input type="radio"/> M0	<input type="radio"/> M0	No distant mets			
<input type="radio"/> M1	<input type="radio"/> M1	Distant mets present			
<input checked="" type="radio"/> M1a	<input type="radio"/> M1a	Separate tumour nodule(s) in a contralateral lobe; tumour with pleural or pericardial nodule(s) or malignant pleural or pericardial effusion			
<input type="radio"/> M1b	<input checked="" type="radio"/> M1b	Single extrathoracic mets			
<input type="radio"/> M1c	<input type="radio"/> M1c	Multiple extrathoracic mets in one organ			
<input type="radio"/> M1c	<input type="radio"/> M1c	Multiple extrathoracic mets in several organs			
Notes					
1. The uncommon superficial spreading tumour of any size with its invasive component limited to the bronchial wall, which may extend proximal to the main bronchus, is also classified as T1a.					
2. Solitary adenocarcinoma, ≤ 3 cm in size, with a predominately lepidic pattern and ≤ 5mm invasion in any one focus.					
3. T2 tumours with these features are classified T2a if 4 cm or less in greatest dimension or if size cannot be determined, and T2b if greater than 4 cm but not larger than 5 cm in greatest dimension.					
4. Most pleural (pericardial) effusions with lung cancer are due to tumour. In a few patients, however, multiple microscopic examinations of pleural (pericardial) fluid are negative for tumour, and the fluid is non-bloody and is not an exudate. Where these elements and clinical judgement dictate that the effusion is not related to the tumour, the effusion should be excluded as a staging descriptor.					
5. This includes involvement of a single distant (non-regional) lymph node.					

MDT Tool - communication

	Metro North Hospital and Health Service	AFFIX label to validate demographics
Department of Thoracic Medicine <i>Pulmonary Malignancy Service</i>		
The Prince Charles Hospital <i>"Putting People First"</i>		
Enquiries to:	Lung Lesion Diagnostic Nurse	
Department:	Thoracic Medicine	
Telephone:	07 3139 5216	
Facsimile:	07 3139 4510	
File number:	000000	
Date:	24/03/2017	
Consultant	Orange	
PULMONARY MALIGNANCY SERVICE	TESTER, Windy, 19/07/2014	
Thoracic Medicine Aldons, P Bell, S Bowman, R Burke, A Douglas, J Fiene, A Fong, K France, M Leong, S Reid, D Robinson, P Smith, D Marshall, H Masel, P Yang, IA Chambers, D	Summary of PMC Presentation 3/02/2017	
Thoracic Surgery Windsor, M Naidoo, R	Diagnosis: 1:24:28 AM LUL Unknown Not Determined	
Medical Oncology Hughes, B Inglish, P Lwin, Z	Stage: Clinical TNM stage; cT3 N2 M1a Pathological TNM stage (if applicable); pT4 N2a2 M1b	
Radiation Oncology Pratt, G Chua, B	Proposed Treatment Intent: Unknown Treatment Plan: Other Needs referral letter else no appointment!	
Palliative Care Stevenson, J Treston, P	Comments: ThorMed: SOB and has COPD ThorSurg: can they can climb stairs? RadOnc: Happy to see to discuss! MedOnc: Should see an Oncologist!! PallCare: Please refer to catchment! NucMed: May be malignant or may not on PET Rad: Needs extra imaging Path: Need more cells, not enough tissue	
Anatomical Pathology Godbolt, D Tran, K Gupta, S Manawar, S Vengasayi, T	Referral(s) to be organised if needed by; PMC Presenter	
Imaging Reddy, T Campbell, P Brown, Nick Joseph, V	PMC Chair: Marshall	
Nuclear Medicine Lee, J Rose, D		
Nursing Care Shields, P (acting) Hollen, M Gibson, N		
MDT Coordinators Brady, J Passmore, L McCaul, L		
Social Work Porter, H		
Oncology Pharmacist Grims, G		
Psychology		

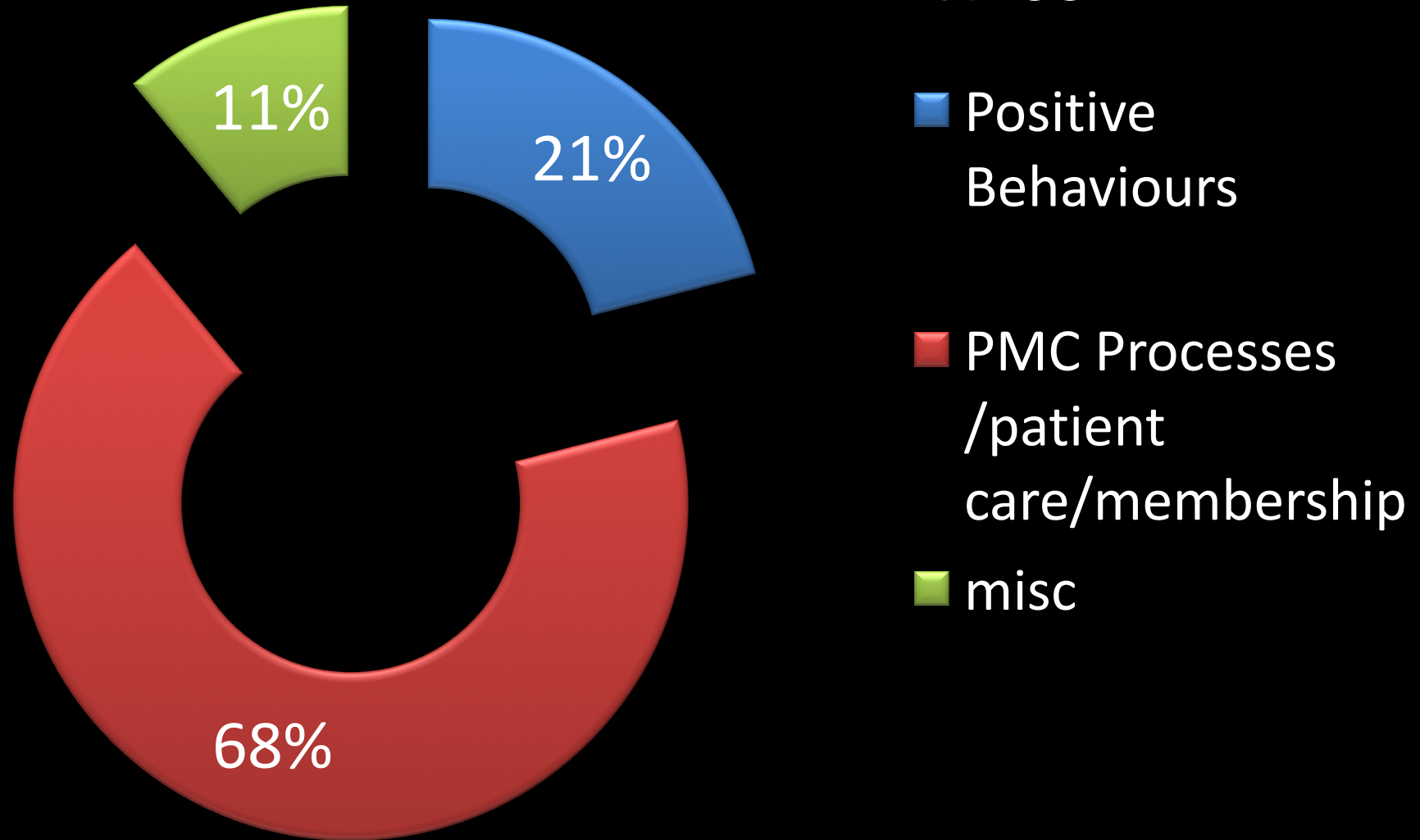
Please file in Correspondence



Strategic Planning Meeting 2015

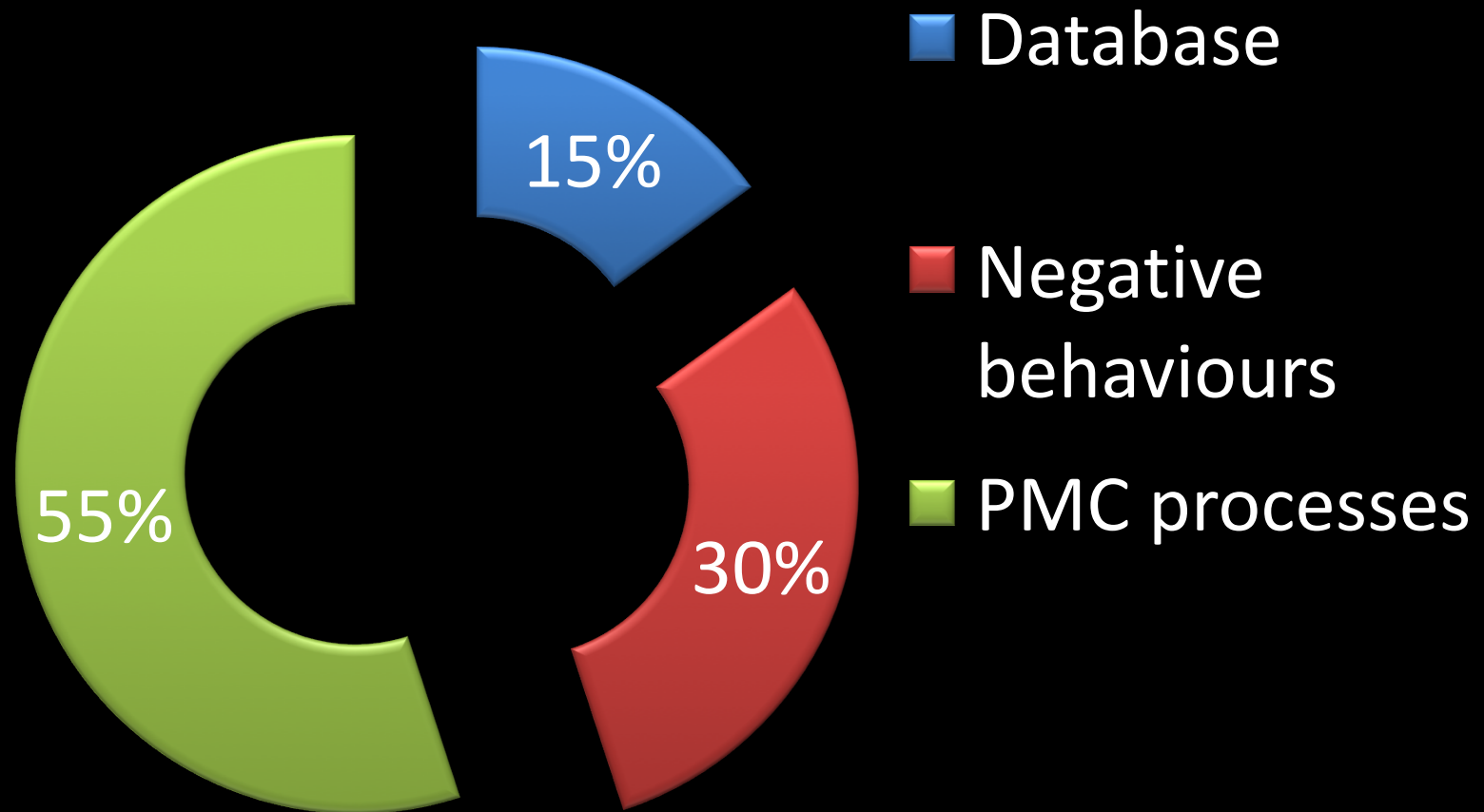
Members of the Pulmonary Malignancy Conference work together to find solutions to identified gaps in the operation of the MDT meeting.

Issues identified as strengths N=66



Issues needing attention

N= 65



3 Can some patients be managed outside of the meeting?
If so, how and who?

Clearly
Stage I^A Surgical
pre op: data entry
only.
post op: presentation.

- patients can be
discussed between
treating teams prior
to meeting.

Too many
ALL new cases
- truncate presentation
of clear cut cases.

Representations

- clearly palliative
(all options previously
discussed)
- Lung Mets (non
pulmonary)
Extensive Disease.

Dead Patients

- Need to be
fully worked up.
(or as far as possible)

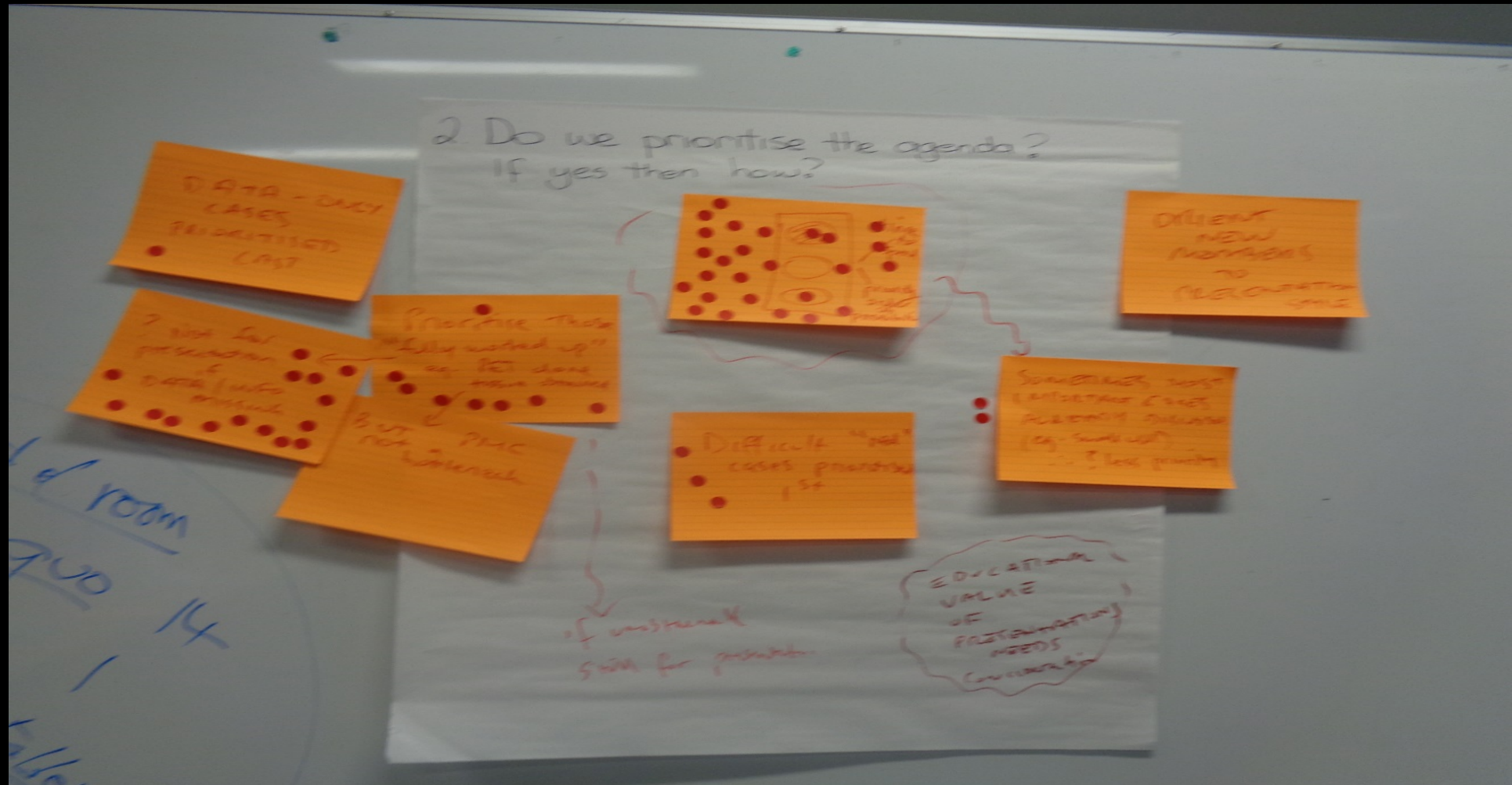
- Data base
only cases

Pathologist
Radiologist
Access to
QA

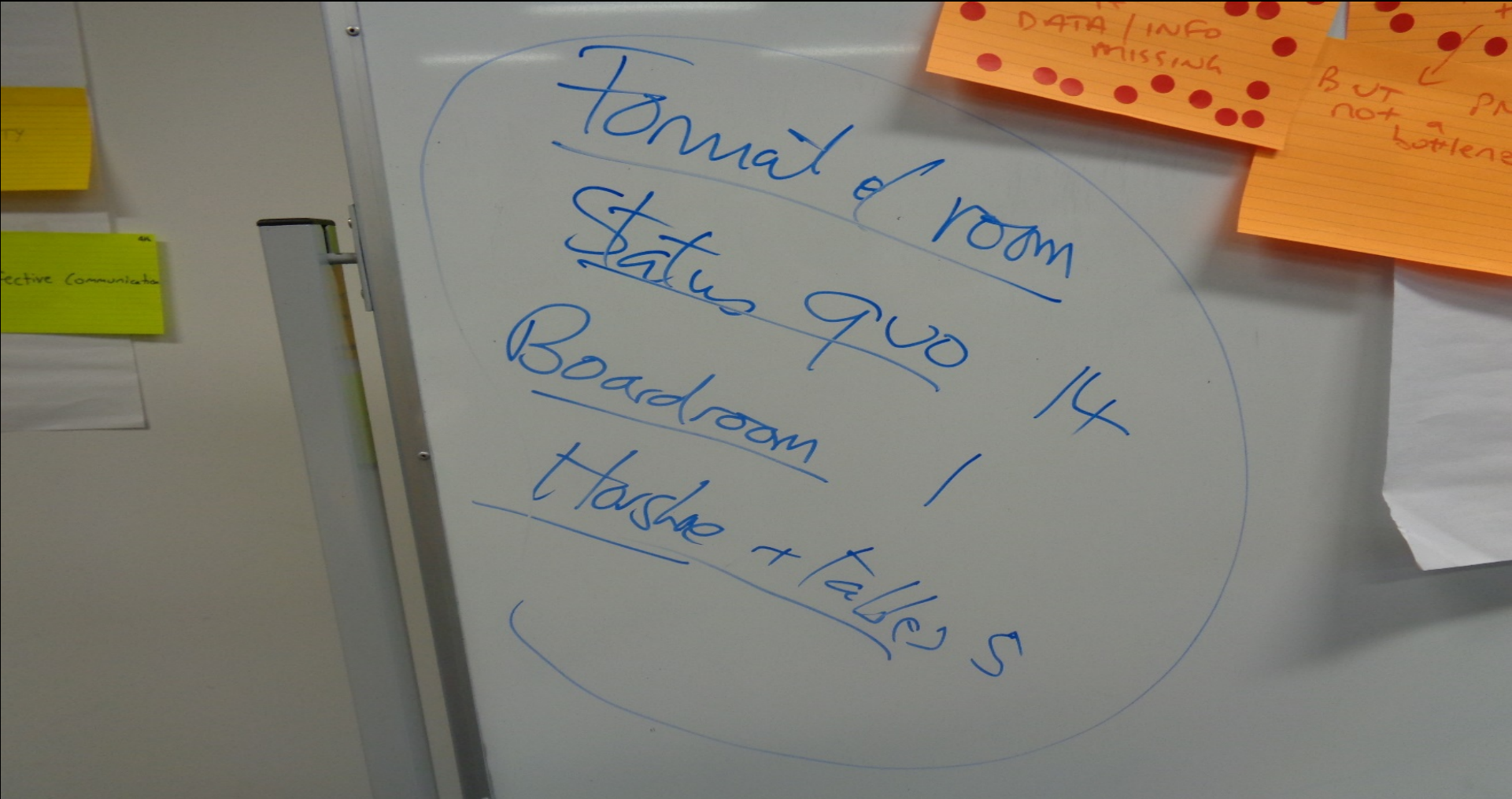
Can some patients be managed outside the meeting?



working together to come up with
solutions



Are people mostly on the same page?



Voting time - democratic process

Session	What was agreed
Professionalism /relationships	1. Professional behaviour is expected of members at all times respecting the charter of the PMC.
	<p>Expectation of chair</p> <ol style="list-style-type: none"> 1. Authority to manage the running of the meeting 2. Manage, rotate of interested volunteers
Next step	<ul style="list-style-type: none"> ○ Charter to be developed and endorsed ○ Barbara to draft and send around for endorsement ○ Chairs to enforce charter and have authority to keep meeting to time and in order. ○ Invite volunteers for chair position.

Issue	Agreed
Increasing workload, managing numbers	<p>All agreed ideas today will be added to the PMC Guide and members will agree to abide by it.</p> <ol style="list-style-type: none"> 1. Vary by complexity 2. Workup must be complete before referral or as far as it can be done. 3. Traffic light system using a priority categorisation. 4. Cut off time for referrals Monday 3pm 5. All referrals after cut off will be deferred to following meeting or referrer will have to ask the Chair. 6. No non –pulmonary lung mets referrals 7. Members should register for QOOL

PMC Outcomes

- Standard Operating Procedure
- PMC Terms of Reference, charter, tighter processes.
- Improved data collection
- System to manage patient referrals to PMC
- Committees:
 - Psychosocial – patient psychosocial needs
 - Clinical – Clinical matters, Multidisciplinary care; Education, data integrity and quality

A Tested Method

- Assess the service
- Audit patient medical records
- Communicate with MDT and other stakeholders. Establish working groups. Communicate on an adhoc basis or use a working group as a conduit to the wider membership.
- Give the opportunity to all team members to participate in decision making.
- The team is made aware of the issue, we debate possible solutions, decide on the best way forward, vote then implement.



Access to
specialist
services

Individual and system
barriers

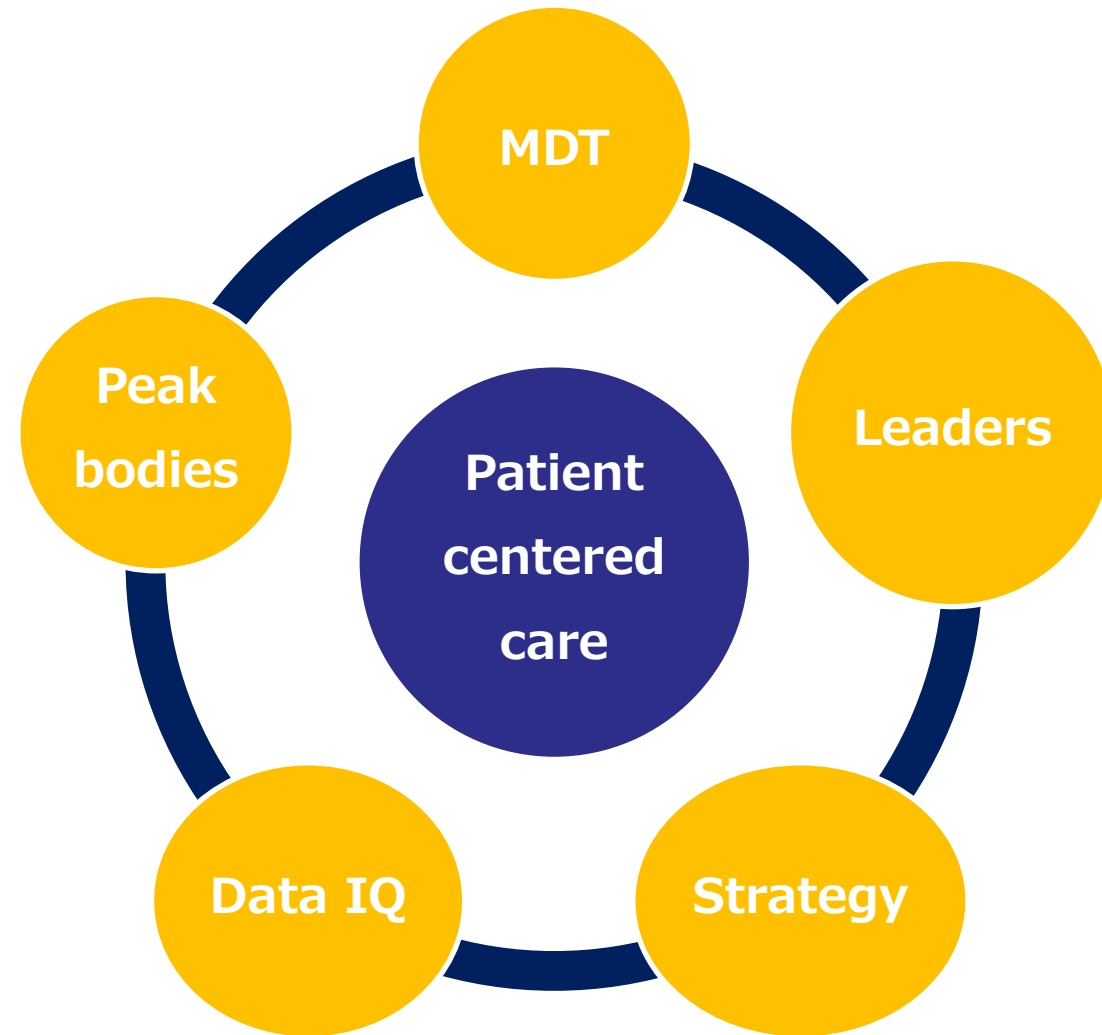
Diagnostic
investigations

Sequence and
timing

Multidisciplinary
care

Effective and efficient

A sustainable MDT service improvement includes:





A little girl stands on the beach in awe of the hundreds of starfish adrift on its sands.

She picks up one starfish and returns it to the sea. As she picks up another, an onlooker calls out "Little girl, don't waste your time you'll make no difference. The little girl throws the starfish as far as she can into the sea and replies,

" Well its made a difference to that one!"

Acknowledgements

- Members of Pulmonary Malignancy Conference TPCH
- Cancer Australia: Lung cancer demonstration project team
- Queensland Cancer Control Analysis Team, Brisbane Queensland
- Metro North Hospital and Health Service Clinical Operations Strategy Implementation unit (COSI) and Metro North Primary Health Network
- Central Integrated Regional Cancer Service, Queensland

References

1. Cancer Australia: Principles for best practice management of lung cancer in Australia available at www.canceraustralia.gov.au
2. Fradgley EA, Paul CL, Bryant J. A systematic review of barriers to optimal outpatient specialist services for individuals with prevalent chronic diseases: what are the unique and common barriers experienced by patients in high income countries? International Journal for Equity in Health 2015
3. Oncology Analysis System, Queensland Cancer Control Analysis Team, Queensland Government Accessed March 20 2017
4. Lung cancer specialist assessment and diagnosis, Metro North Development Zone, Map of Medicine 2016

*MDTs for
Translational
Research -
the Clinician's
Perspective*

KEYNOTE PRESENTATION

DR EMILY
STONE

MDT CHAIR + THORACIC PHYSICIAN
ST VINCENT'S HOSPITAL,
KINGHORN CANCER CENTRE,
SYDNEY CATALYST

- The start
- Data
- Team building
- Research evolution
- Pivotal moments
- Reflections
- MDT research to practice



The start of the MDT

- Clinical gap
- Surveyed relevant clinicians
- Booked a room and a date
- A year with the RNSH MDT





MDT data

2006 - MDT

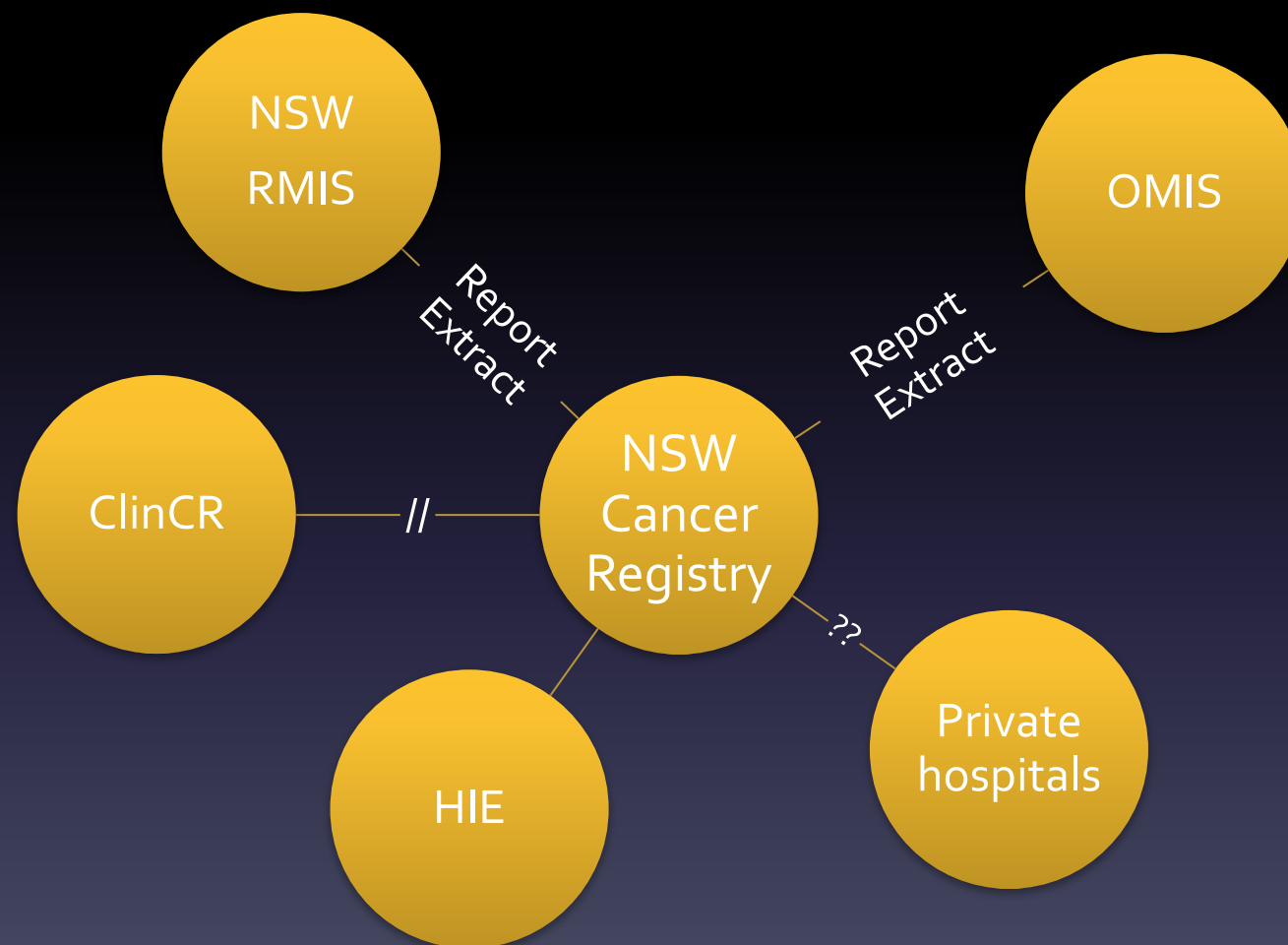
Spreadsheet

Well known software – stand alone
DB

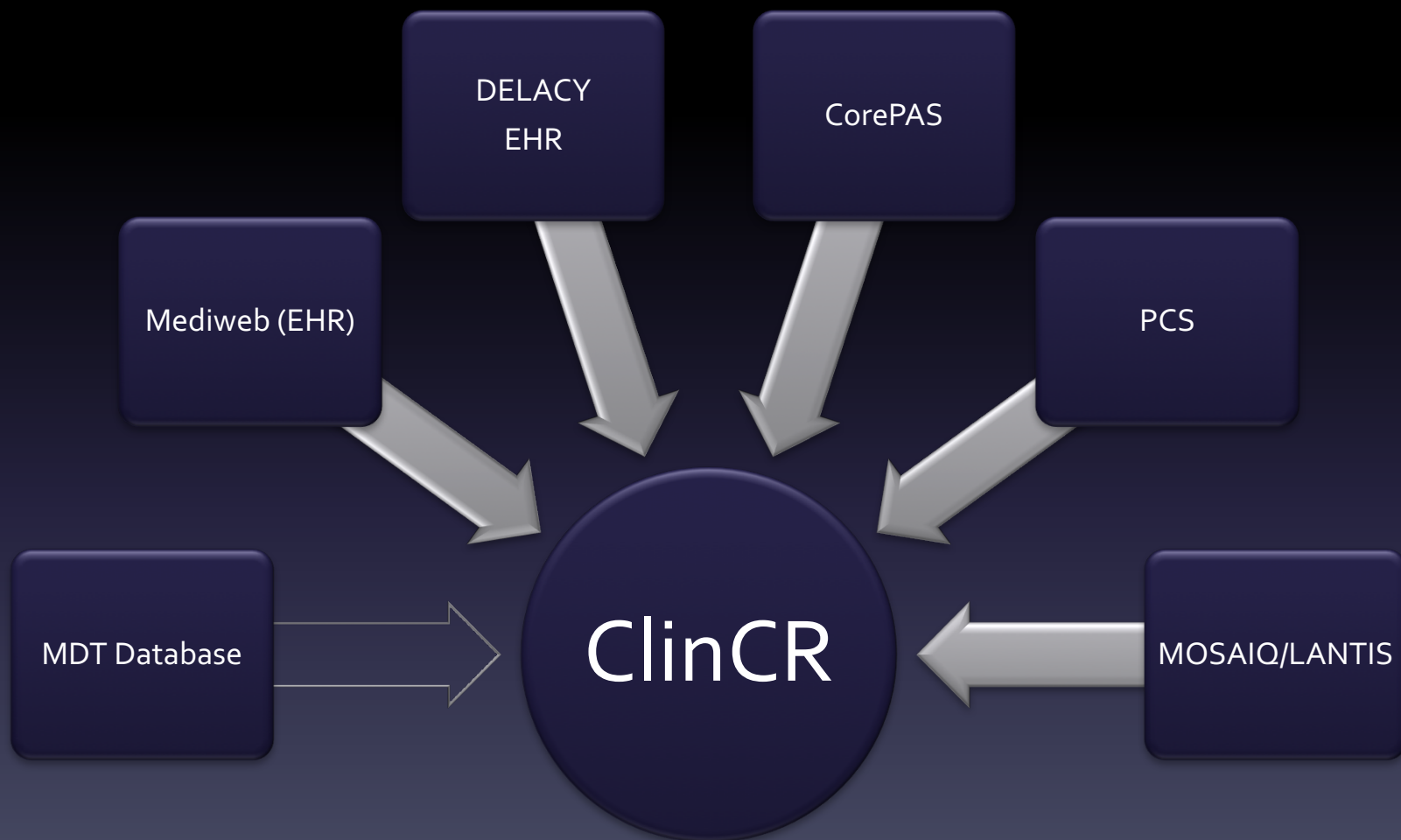
2011 – other well known software
integrated DB*

*fortuitous corridor conversation

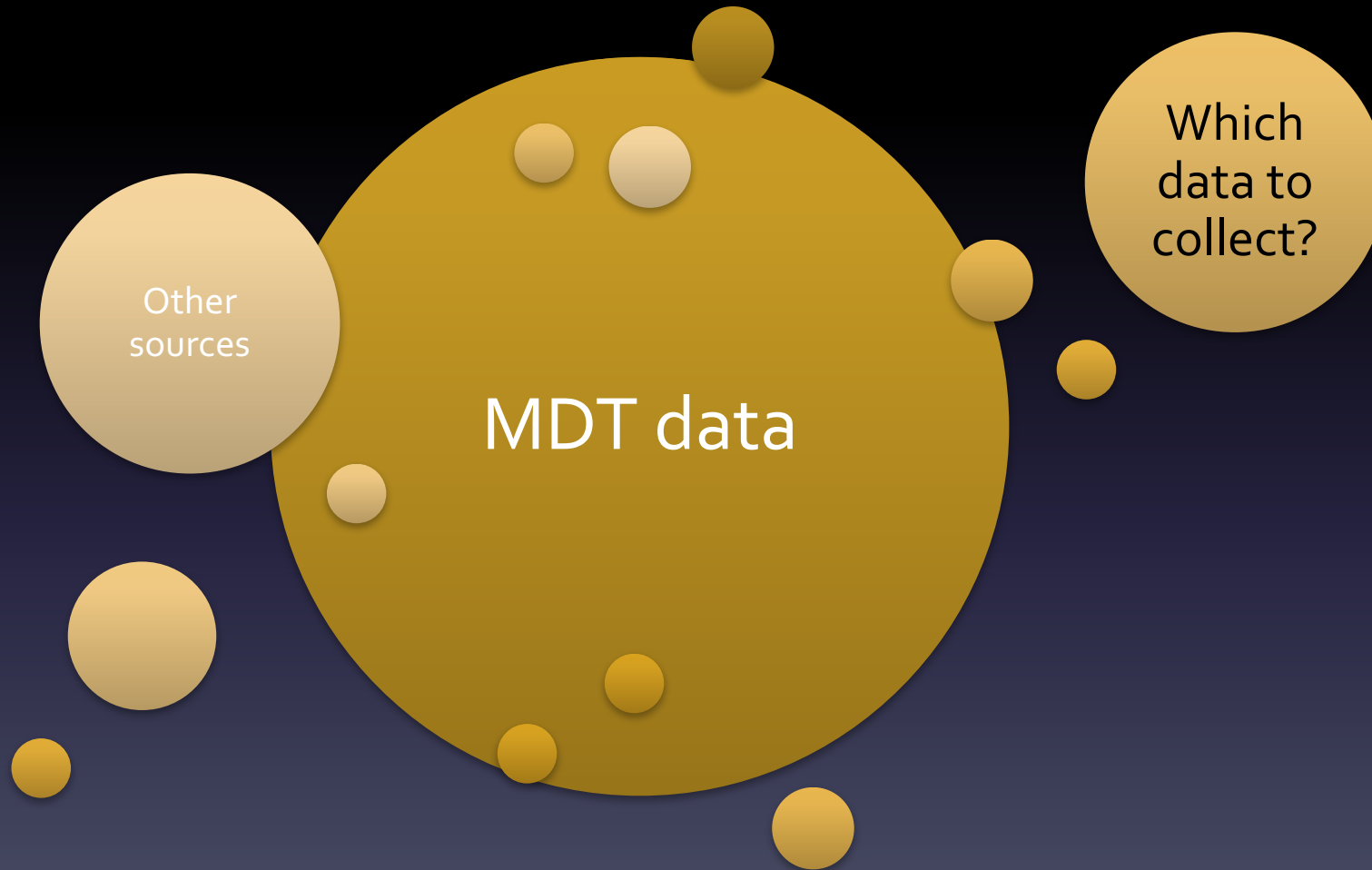
The Data Map



Data mapping to ClinCR



My place on the data map

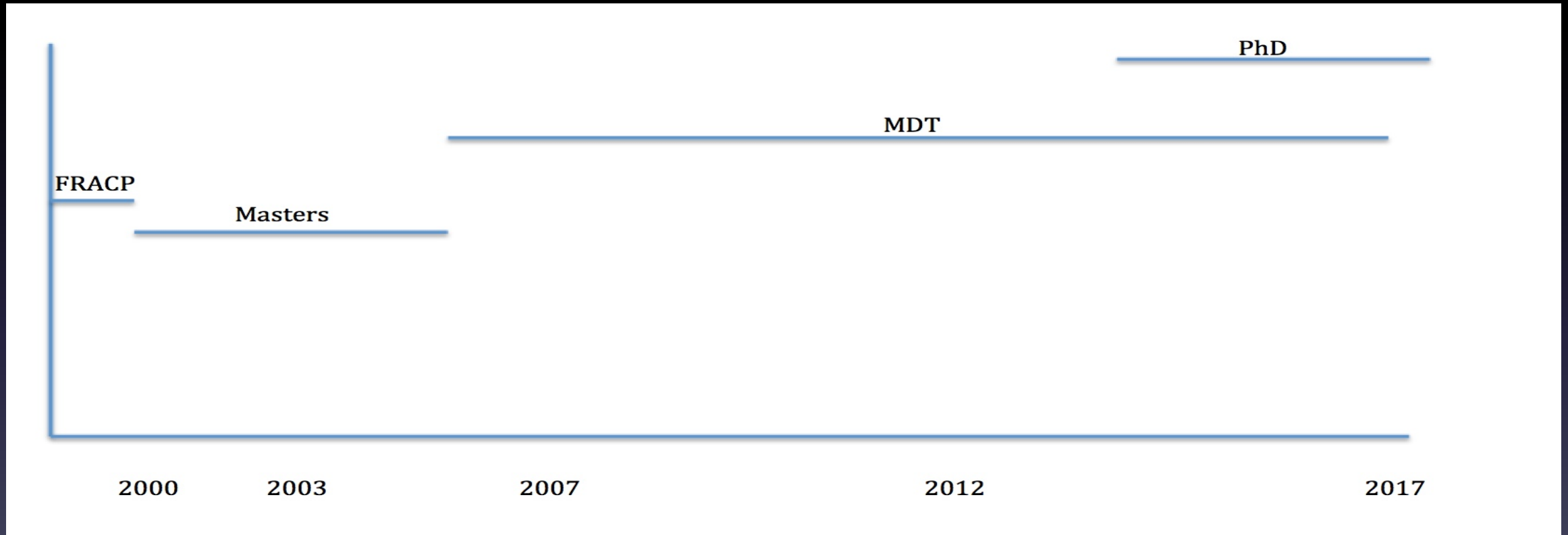


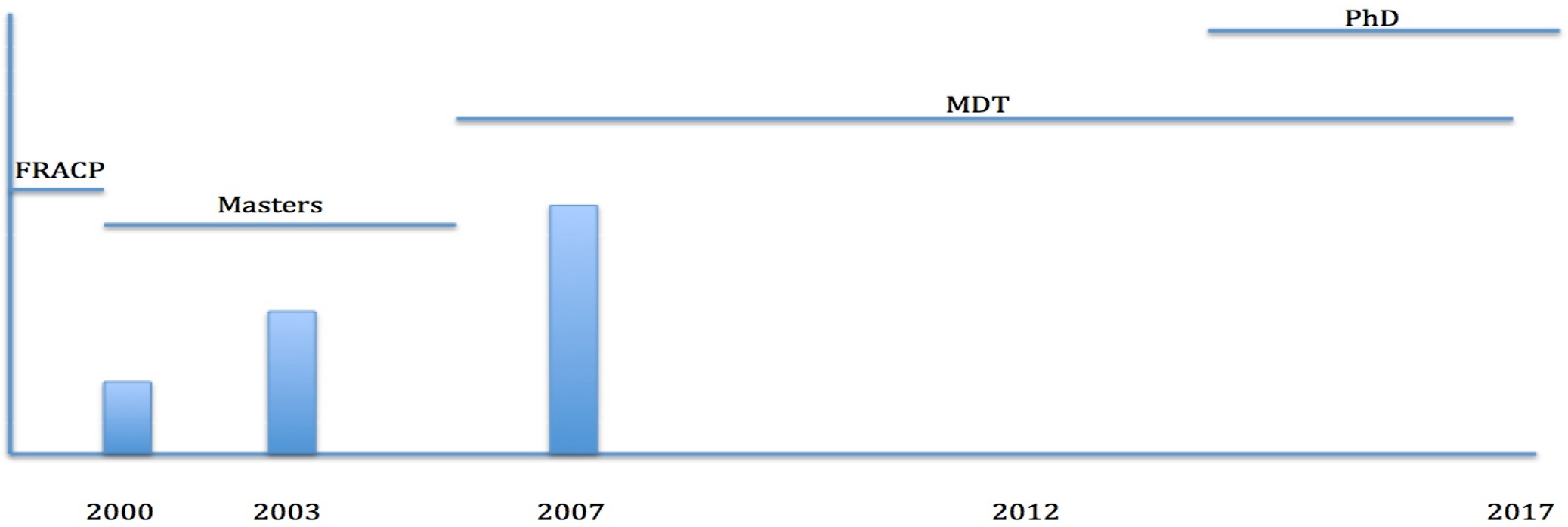
MDT Team Building

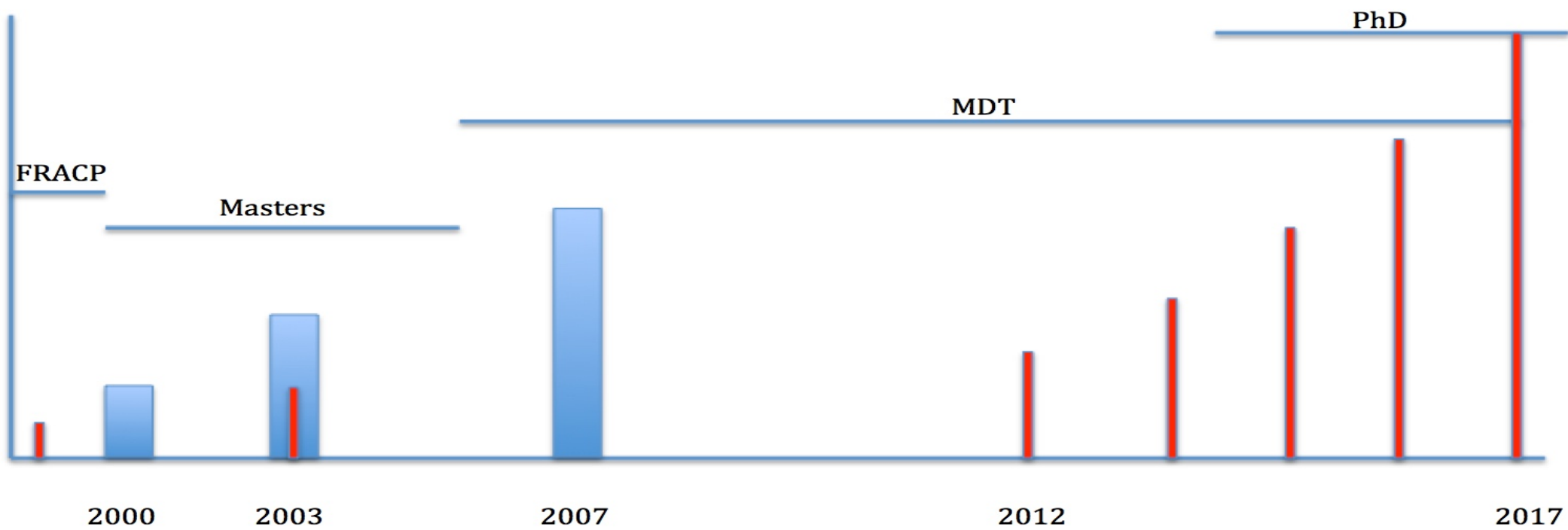
Year	Research assistant, Student, Trainee	Conference
2015	LZ	WCLC, Denver
2014	TB	ALCC, Brisbane**
2014	LZ	ALCC, Brisbane**
2014	KT	ALCC, Brisbane
2014	QN	ALCC, Brisbane
2013	HA	WCLC, Sydney*
2013	PB	WCLC, Sydney
2013	YD	TSANZ, Darwin
2012	HA	ALCC, Adelaide
2010	CC	TSANZ, Brisbane
2010	SO	TSANZ, Brisbane
2007	RK	TSANZ, Auckland

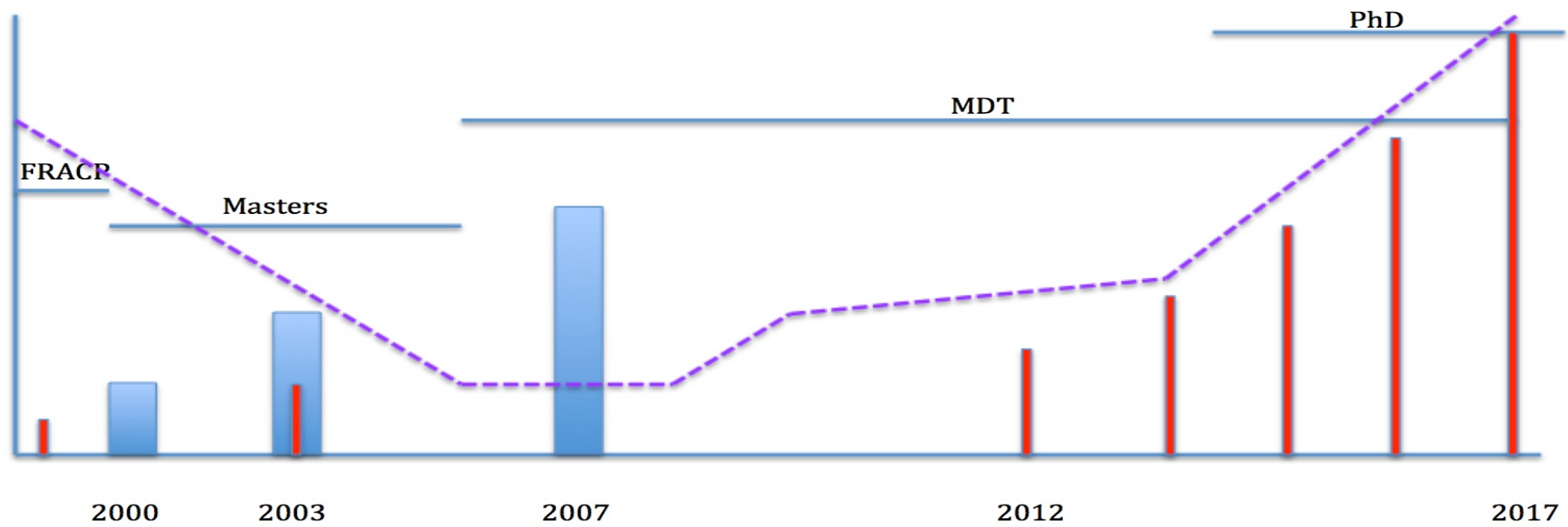
- Clinicians
- Director Cancer Services
- MDT Co-ordinator
- Clinical trials staff
- MDT leadership meetings
- “Study tours” – local /intl

Research evolution

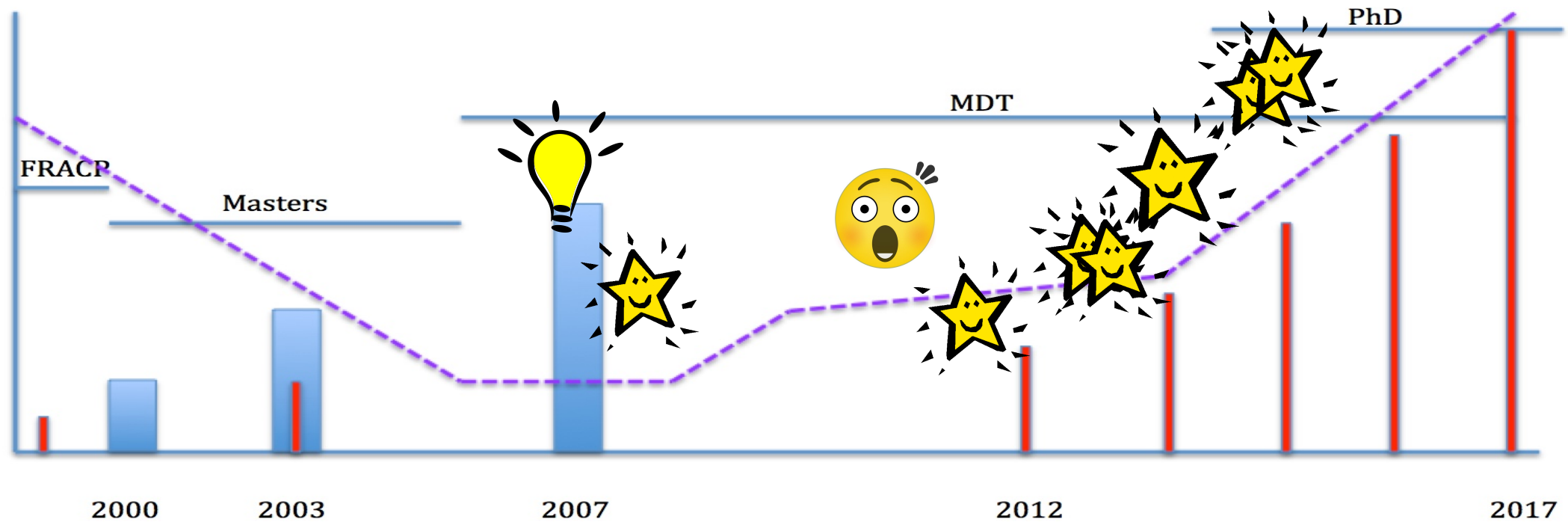








Pivotal Moments



Research from the MDT so far

Year	Research assistant, Student, Trainee	Conference
2015	LZ	WCLC, Denver
2014	TB	ALCC, Brisbane**
2014	LZ	ALCC, Brisbane**
2014	KT	ALCC, Brisbane
2014	QN	ALCC, Brisbane
2013	HA	WCLC, Sydney*
2013	PB	WCLC, Sydney
2013	YD	TSANZ, Darwin
2012	HA	ALCC, Adelaide
2010	CC	TSANZ, Brisbane
2010	SO	TSANZ, Brisbane
2007	RK	TSANZ, Auckland



High proportion of rare and compound epidermal growth factor receptor mutations in an Australian population of non-squamous non-small-cell lung cancer

E. Stone,^{1,5} H. A. Allen,^{1,5} T. Saghaie,² A. Abbott,² R. Daniel,² R. S. Mead,^{3,4} M. Kohonen-Corish,⁴ M. Plit¹ and L. Morgan²

¹St Vincent's Hospital Sydney, ²Nepean Lung Cancer Group, Nepean Blue Mountains LHD, ³SydPath, ⁴Garvan Institute of Medical Research, and

⁵Kinghorn Cancer Centre, Sydney, New South Wales, Australia

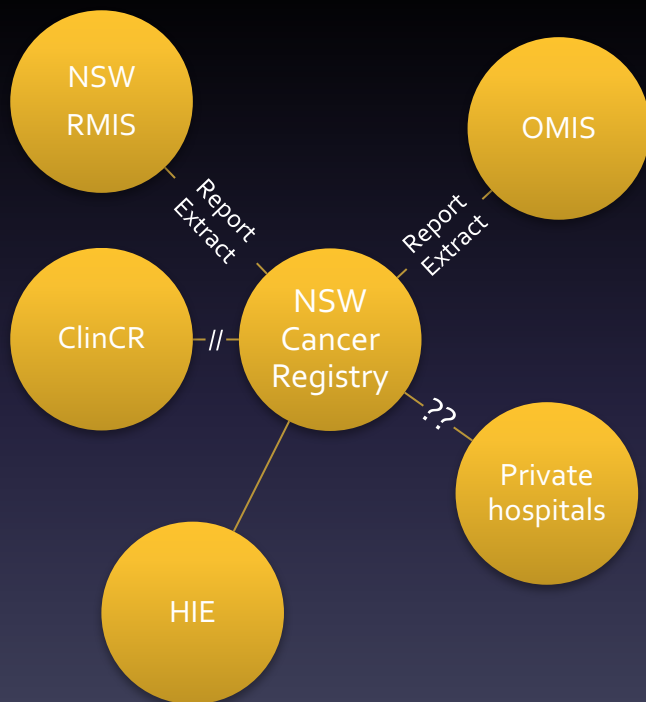
ORIGINAL ARTICLE

Closing evidence-practice gaps in lung cancer: Results from multi-methods priority setting in the clinical context

Deborah MCGREGOR,¹ Nicole RANKIN,² Phyllis BUTOW,³ Sarah YORK,² Kate WHITE,⁴ Jane PHILLIPS,⁵ Emily STONE,⁶ David BARNES,⁷ Ruth JONES⁸ and Tim SHAW¹

¹*RISE Faculty of Health Sciences, ²Sydney Catalyst Translational Cancer Centre, University of Sydney, ³Psycho-oncology Co-operative Research Group (PoCoG), and School of Psychology, University of Sydney, ⁴Cancer Nursing Research Unit, University of Sydney, and Sydney Local Health District, ⁵Centre for Cardiovascular and Chronic Care, University of Technology Sydney, ⁶Department of Thoracic Medicine, St Vincent's Hospital, Darlinghurst, ⁷Department of Respiratory and Sleep Medicine, Royal Prince Alfred Hospital, Sydney, and ⁸Western New South Wales Local Health District, Dubbo, New South Wales, Australia*

Reflections



My supervisor and me



MDT Research to Practice

- What is unique to MDTs?
- What do clinicians need?
- Where are the clinical gaps?



PANEL DISCUSSION

- A/PROF VINCENT **LAM**
- DR EMILY **STONE**
- A/PROF NIRMALA
PATHMANATHAN
- DR NICOLE **RANKIN**

*Should MDTs
be the central
driver of the
research
agenda?*

THANK YOU

For attending +
completing our
evaluation survey



<https://tinyurl.com/mdtsurvey>