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Health

Northern Sydney
Local Health District

AGED CARE MOBILE XRAY SERVICE – an ED Avoidance project October 2013

THE EVOLUTION OF A NEW HOME-BASED IMAGING SERVICE

Government approach by Dr Suzanne Daly and Dr Stephen Ginsborg for local community need for aged patients to be imaged in their place of residence via a ***hospital-based*** Mobile X-Ray Service.



...TOGETHER WITH

an aging population and ED overcrowding requiring innovative hospital avoidance strategies .

... RESULTED IN

MTEC Grant (Ministerial Taskforce into Emergency Care- NSW) , \$355K for first hospital-based pilot

LITERATURE REVIEW



Reduced ED demand by aged care facility residents through improved primary care services.

Presented by Jackie Frankel¹

Co-prepared with Dr Jim Codde² & Mary Ivey³

¹ Fremantle GP Network

² SMAHS Health Service Planning Unit

³ Fremantle Hospital Residential Care Line Service

AGPN Conference Darwin

Thursday 30 October, 2008

INVESTIGATIVE PHASE

- Total ED presentations for the month of March 2011 (Mona Vale + Manly Hospitals) was $N = 4,235$.
- The overall (month) percentage for RACF/Nursing home/Aged residential ED presentations = 4.4% (Compares well with Freemantle study of 4.6%).
- When including all residential patients >70 yrs of age this becomes **15.4% of total ED presentations.**

AIMS and OBJECTIVES

To provide all general radiography diagnostic services to:

- local Aged Care Facilities (ACFs)
- immobile patients in private homes
- disabled of all ages.

through GP referral and Emergency Department avoidance. (**10% target of reduced ED (ACF) presentations** from baseline data)

IMPLEMENTATION-

Digital Equipment Evaluation



IMPLEMENTATION- The Van



Acknowledgement: Promotional Support from
Sydney North Shore and Beaches Medicare Locals –
Kris Hume and Sarah van De Scheur

IMPLEMENTATION- The “A” Team

- Two RADIOGRAPHERS :
Shawn Thomson,
Alex Wait
- TECHNICAL ASSISTANTS
Safal Pokharel
Denys McNaulty



SAFE WORK METHODS

Report by WHS consultant



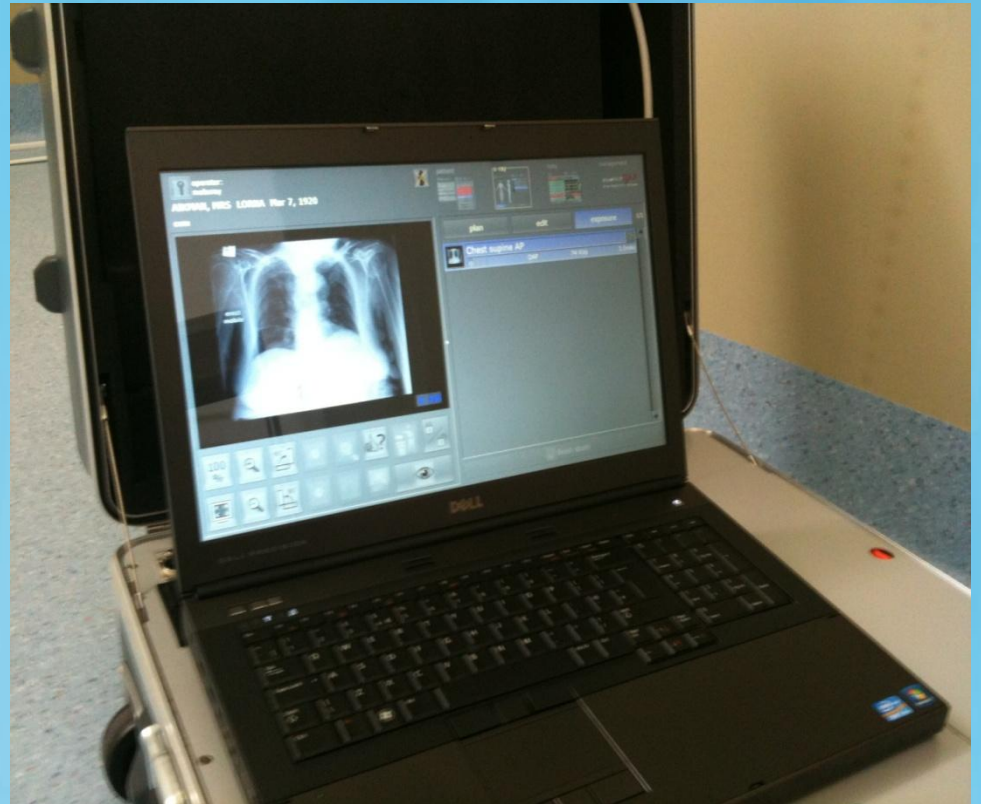
WHS e.g. Lifting arm procedures by Deb McHugh, Katherine OKeefe

IMPLEMENTATION- Image and report transfer

Digital images available to Nursing homes (DVD) immediately.

Images sent to GP and reporting radiologist by the end of the mobile imaging session
Monday to Friday

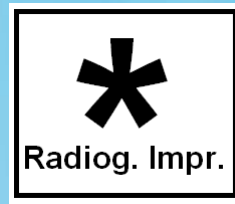
Radiology report within 24-48 hours.



IMPLEMENTATION- Policy and Procedures

1. Inclusion and Exclusion criteria (patient is assessed as “low risk “)
2. Workforce Health and Safety Issues:
 - OHS review/report
 - one step policy

3. Alerts procedure.



Radiographer places an image alert for abnormal cases requiring ED/call to GP/notify NUM

POST IMPLEMENTATION FINDINGS

1. ED Avoidance data

- The literature suggests an avoidance of **7- 48%** of all emergency presentations

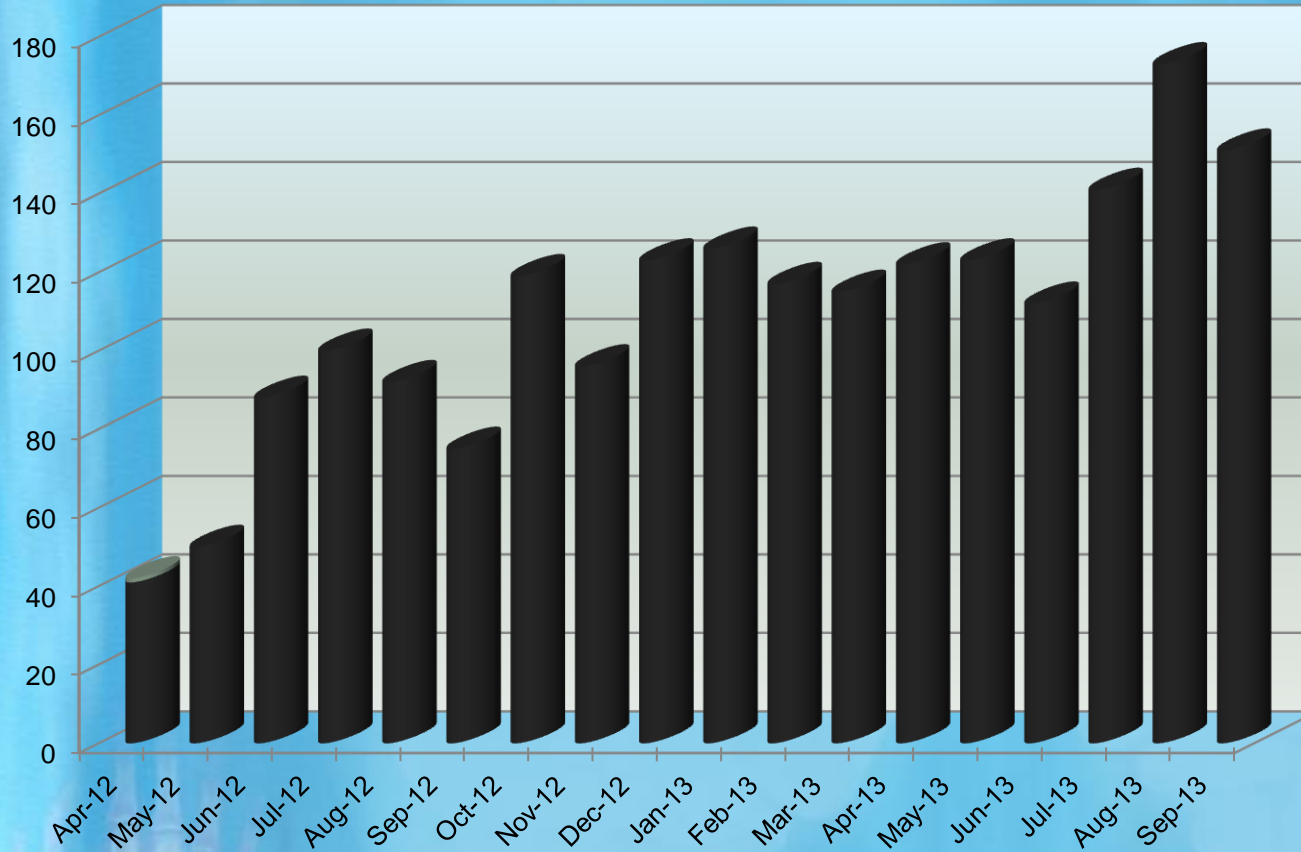
(Bergman et al 1991, Finn et al 2006, Bellatonio 2008, Juge-Boulogne et al 2001 if including all other home-based services)

- A **23.2 %** reduction of Aged Care Facility (ACF) patients presenting to ED departments was been demonstrated with **87.5 % of these van patients not presenting later to ED.**

2. Volume Data n = 2037

■ Monthly volume

Northern Beaches Mobile XRay Service Volume Data 2012-13



3. Types of cases to date



An incidental finding...



4. Financial and Staff Savings

- Emergency department avoidance savings are significant. The average cost per hour for a patient of triage category 4 to 5 is \$71- \$80. For ave. of 109 less patients per month (average stay of 5 hours @ \$75/hour), **\$40,875 per month is saved.**
- NSW Ambulance Service costs are also avoided at approximately **\$8,000/month.**

5. LIMITATIONS

1. No Medicare rebate category- hospital ward mobile rebate in use.
2. Access to sites/patients..



*Photography
with patient
permission*

THE FUTURE????

Mobile Ultrasound!



AVALON

Godsend for the disabled

*Ref:
Article from
Manly Daily
June 2012*

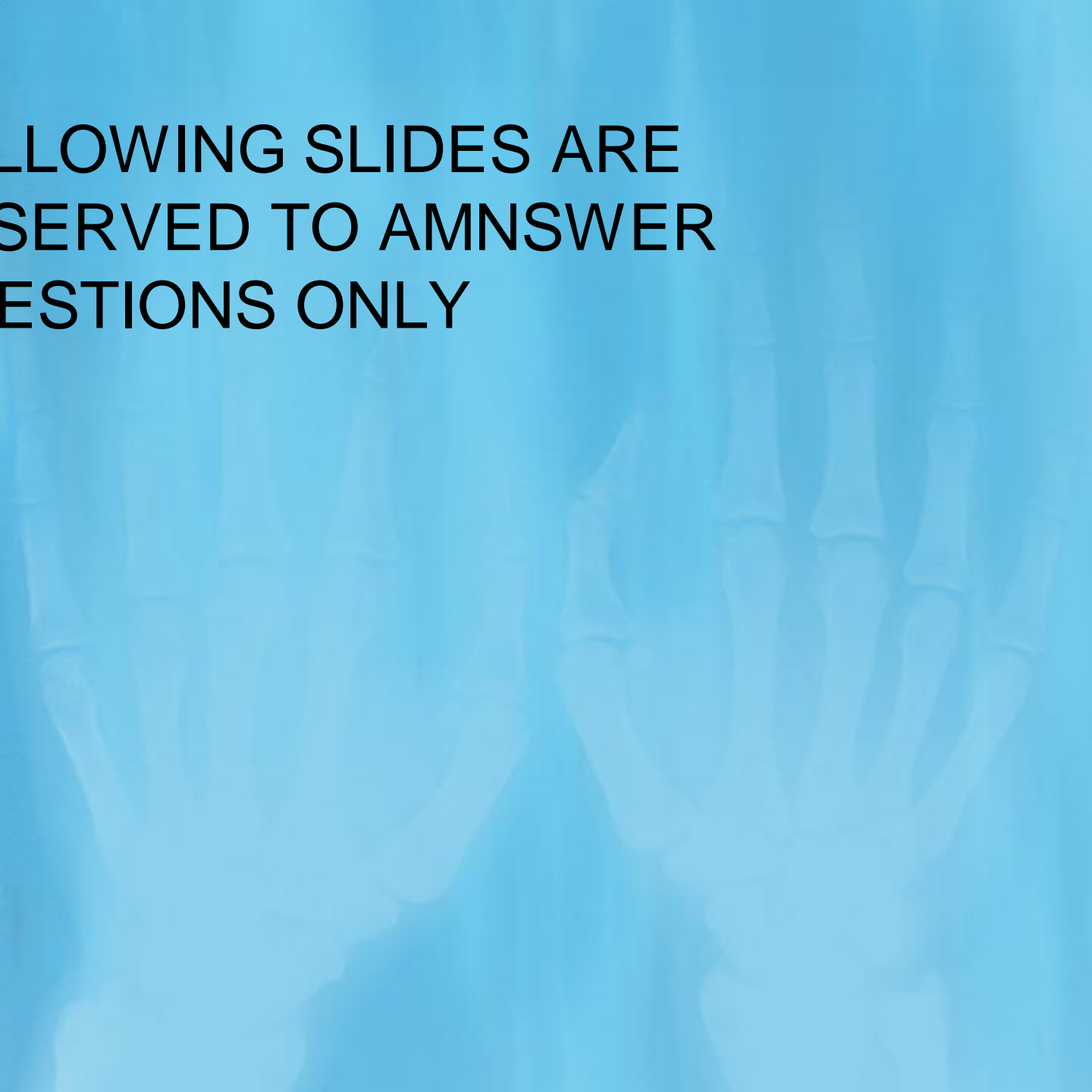


John and Shirley Chamberlain at home with radiographer Bill Trinh.

Picture: ANNIKA ENDERBORG

'IT WAS A DREAM. IT TOOK HALF AN HOUR'

**FOLLOWING SLIDES ARE
RESERVED TO ANSWER
QUESTIONS ONLY**



References

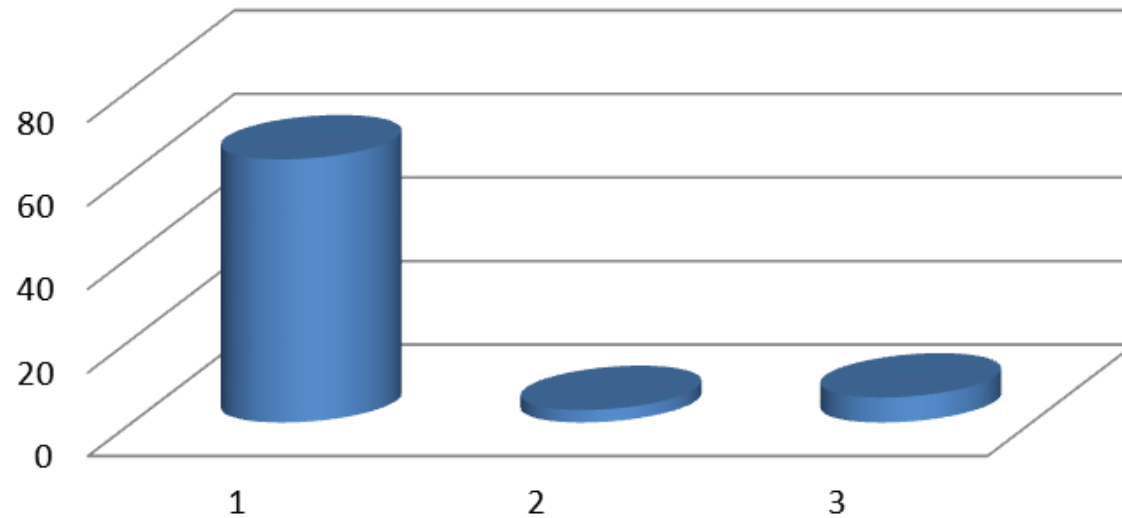
- *Codde and Frankel, 2010, Australasian Journal of Ageing vol 29. No 4. pp 167-71)*
- *Judy A Lowthian, Damien J Jolley, Andrea J Curtis, Alexander Currell, Peter A Cameron, Johannes U Stoelwinder and John J McNeil. The challenges of population ageing: accelerating demand for emergency ambulance services by older patients, 1995–2015. MJA 2011; 194 (11): 574-578*

ED AVOIDANCE AUDIT

Mobile X Ray Service

2012

n=72



KEY

1. Hospital Avoided- no return to ED
2. Questionable- perhaps should have come to ED
3. Patient came to ED in related timeframe for related treatment

INCLUSION CRITERIA

- Patient resides in an Aged Care Facility or residing in a private residence; with disabilities/immobility
- The patient is clinically stable . Does not require immediate transfer to an Emergency Department, but needs a general x-ray for exclusion of condition and to help guide management at place of residence.
- There is a non-critical provisional diagnosis (i.e. no suspicion of a life threatening condition or need for immediate hospital medical intervention)
- Progress review for ongoing management

EXCLUSION CRITERIA:

- A mobile x-ray should **NOT** be ordered for:
- Patients who require immediate medical or surgical in-hospital treatment
- Patients who need CT or Ultrasound

REQUEST FORM



Northern Beaches Mobile X-ray
Northern Beaches Health Service

Mona Vale Hospital
Coronation Street, 2103

Phone: 9998 0268
Fax: 9998 0703

Patient & Facility Details

First name _____	Medicare No _____
Surname _____	Pension No _____
DOB _____	DVA No _____
Sex male / female _____	MRN _____

Affix patient sticker here (x-ray reception only)

Facility Name _____

Facility Address _____

Access/Patient Limitations _____

Facility Phone _____ Fax _____

Affix additional patient sticker here
(doctor or nursing home staff only)

Financial Consent (This section must be completed)

Name of person responsible for invoice _____

Relationship to patient _____

Staff Witness _____

There is a minimum out of pocket cost (\$50) for Mona Vale Hospital Medical Imaging to provide this examination.

Has this cost been discussed and accepted by the person responsible for the invoice? Yes / No

Examination & Medical Officer Details

Examination Requested _____

Clinical Information _____

Infection Risk Details	Yes / No	ALERTS
Known Allergies Details	Yes / No	
Service Priority	24h / 36h	
Service Date	_____	

Please ensure that all information is completed before faxing this request. X-rays can only be conducted when facility address & patient details, Medicare or DVA number and doctor's provider & fax number are supplied.

Name of Referring Doctor	Provider Number	Contact Number	Fax Number
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Signature	Date
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Radiographer Notes

Radiographer's Signature _____

Correct Patient Correct Procedure Correct Site