



**ST VINCENT'S
HOSPITAL**
SYDNEY

A FACILITY OF ST VINCENT'S HEALTH AUSTRALIA

IMPLEMENTATION OF A BARCODE SCANNING SYSTEM TO CAPTURE INPATIENT DIABETES SERVICE ACTIVITY IN A TERTIARY REFERRAL HOSPITAL

Alex Viardot

Department of Endocrinology
St Vincent's Hospital Sydney

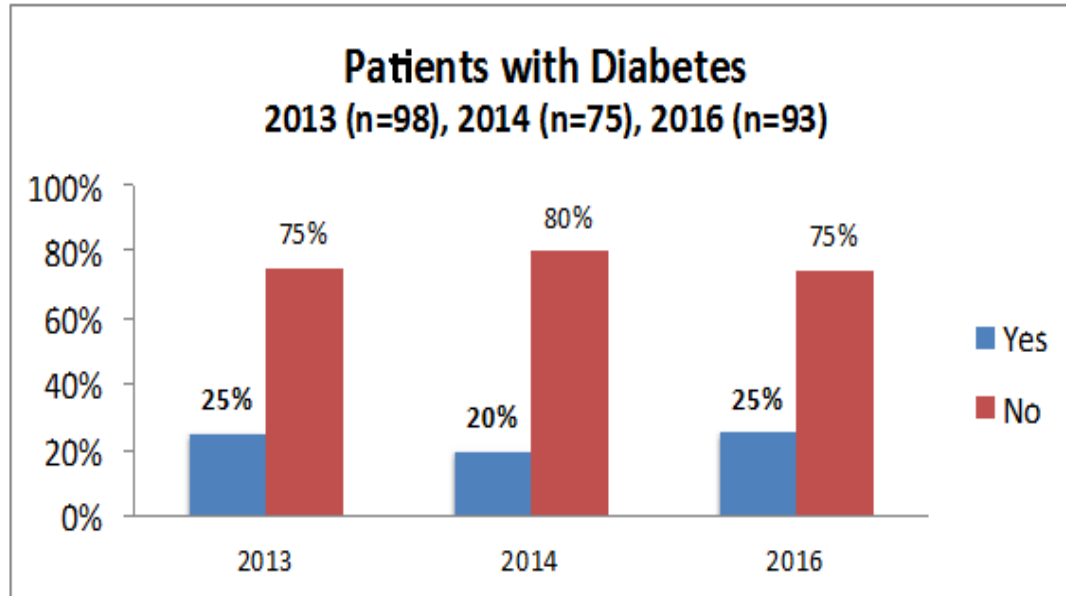
Background

- Increasing financial pressure on Public Hospitals
- Introduction of ABF as new funding model – DRG coding
- Role of capturing clinical activities of medical workforce

Endocrinology/Diabetes Departments

- Mainly outpatient based model of care
- Outpatient activities well captured by scheduling systems and Medicare
- Very few patients admitted under Endocrine Department
- However, high load of inpatient consultations on patients admitted under other specialities which are often under-reported or not captured at all.

Diabetes Inpatient Activities



Inpatient Diabetes Prevalence Surveys 2013, 2014, 2016

- SVH Sydney: ~400 beds
- 25% of all patients have diabetes
- Highest prevalence in: Heart/Lung transplant (56%/63%), Heart Failure (50%), Vascular surgery (45%), GI-surgery (42%), Oncology and infectious diseases (33%)
- 52% treated with insulin
- Only 2 % admitted directly related to diabetes – majority admitted under other speciality teams
- 28% referred to endocrine team. Patients meeting referral criteria and NOT referred: 30%

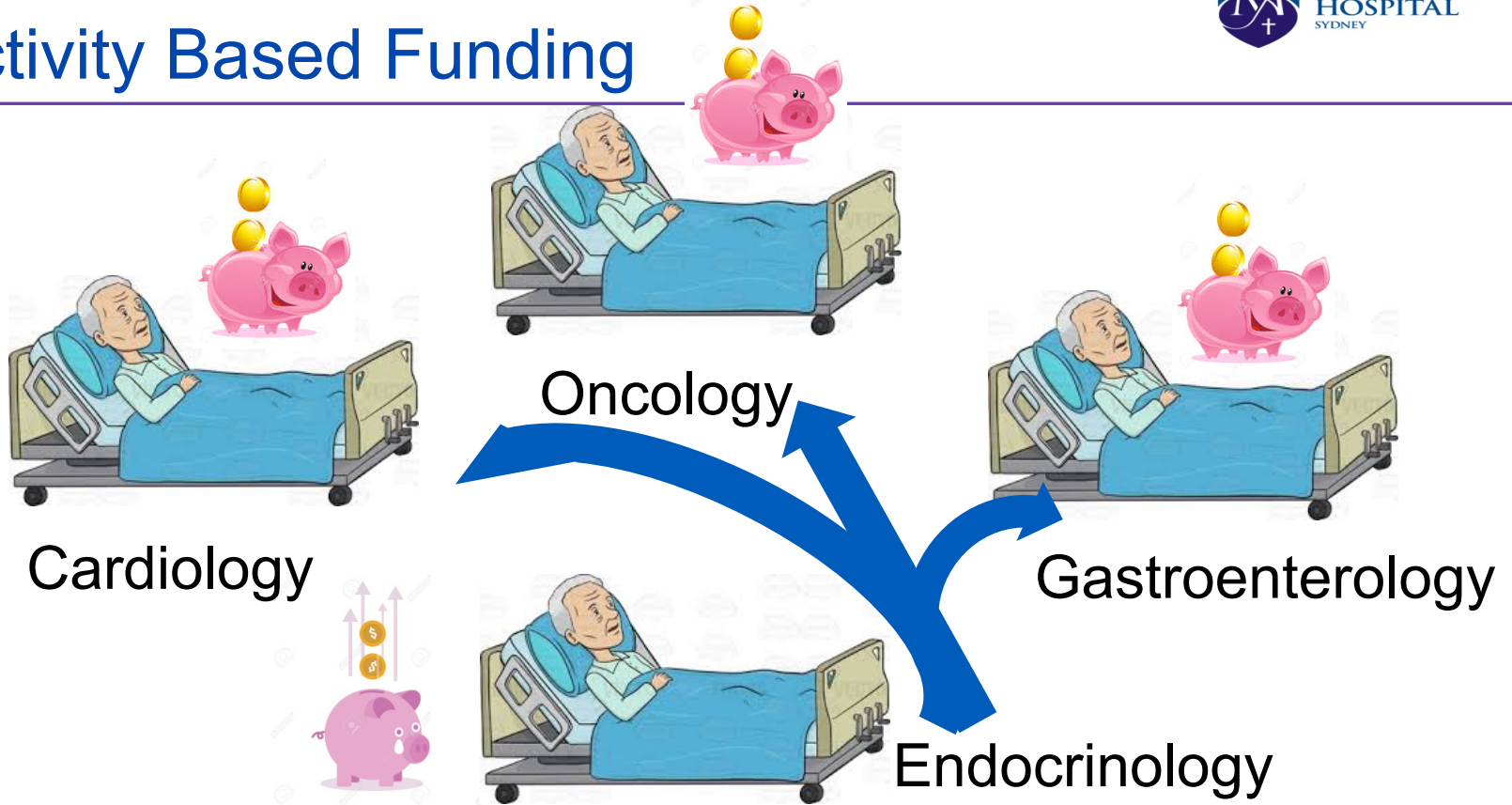
Diabetes Inpatient Activities

REFERRAL CRITERIA TO ENDOCRINE TEAM

- Type 1 diabetes
- Subcutaneous insulin pump
- Type 2 diabetes with BGL >10mmol/L for >24 hrs or HbA1c >8.0% (64mmol/mol)
- Newly diagnosed diabetes
- New hyperglycaemia
- Recurrent and/or severe hypoglycaemia
- Transition to subcutaneous insulin post intravenous insulin infusion
- Treated with concentrated insulin

- SVH Sydney: ~400 beds
- 25% of all patients have diabetes
- Highest prevalence in: Heart/Lung transplant (56%/63%), Heart Failure (50%), Vascular surgery (45%), GI-surgery (42%), Oncology and infectious diseases (33%)
- 52% treated with insulin
- Only 2 % admitted directly related to diabetes – majority admitted under other speciality teams
- 28% referred to endocrine team. Patients meeting referral criteria and NOT referred: 30%

Activity Based Funding



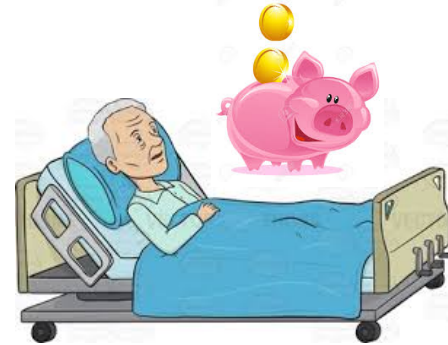
Activity Based Funding



Cardiology



Oncology



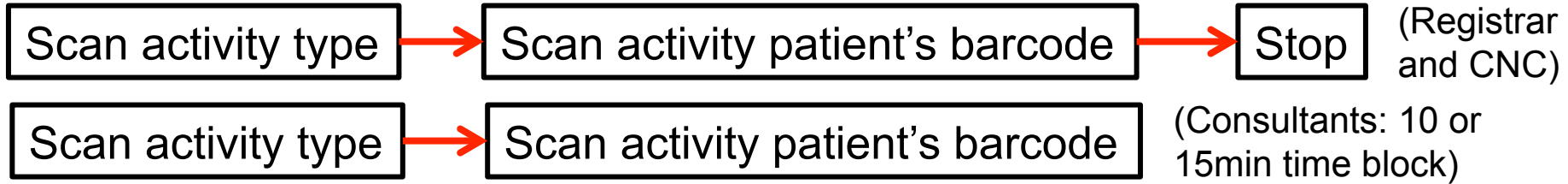
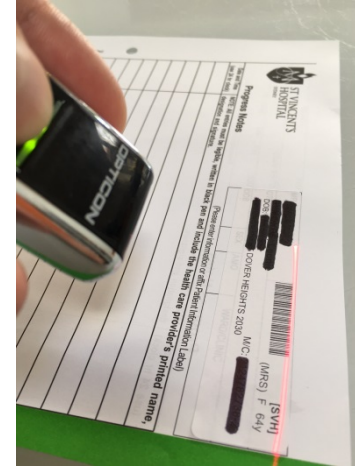
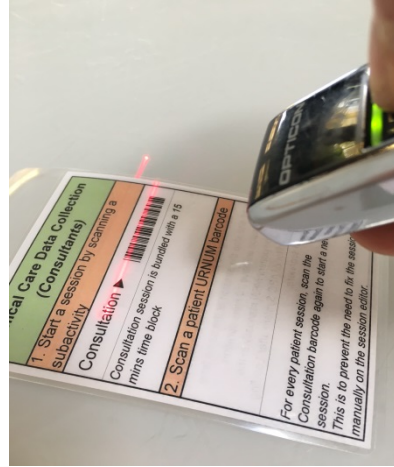
Gastroenterology



Endocrinology

- To test the feasibility and acceptance of an established activity capture system
- To accurately capture the inpatient activity of our medical workforce (registrars, consultants, inpatient CNC),
- To link activity data with the patient administration system, to explore reimbursement of staff costs from the admitting team's cost centres.

Methods: ABC Activity Scanner



Methods: ABC Activity Scanner

ABC - Activity BarCoding | www.activitybarcoding.com

Load From Scanner Recharge your scanner frequently. Logout Help/Contact

ABC Activity BarCoding Check and Submit Your Diary

Logged in as Viardot, Alexander (Major Group Manager)

Dashboard Sessions Reports Forecast Options

Editing Mode: Submission Mode

Thursday, 27 April 2017 (22.0h)

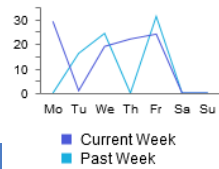
Filters Settings

Session Details



- New Session
- Submit Today

More...



Click here for the forecast

	Code	Duration	Patient	Receiving Unit	Setting	Status
7:00						
8:00						
9:00						
10:00	CC	10:13 AM - 10:13 AM - 0m	NIPA	Endocrinology	A	...
	CC	10:13 AM - 10:13 AM - 0m	NIPA	Endocrinology	A	...
	CC	10:13 AM - 8:11 AM - 21h 58m	NIPA	Endocrinology	A	...
11:00						
12:00						
13:00						
14:00						
15:00						

Edit

Date: Thursday, April 27

Duration: 10:13 AM 10:13 AM 0h 00m

Activity Type: Clinical Care

Sub Activity Type: Telephone Call

Group Status: Seen Individually

Location: Diabetes Centre(HOSP)

Approval Status: Approved

Receiving Unit: Endocrinology

Intervention Patient

Telephone Call [Shared]

Time Block Patient

10 Mins [Shared]

Patient Referrer Status

[None]

Results

2017	Consultants		Ward Registrar		Inpatient CNC	
	Events	Hours	Events	Hours	Events	Hours
April	178	44.5	440	103.3	110	53.0
May	163	40.8	621	168.9	158	64.0
June	169	42.3	517	132.1	67	30.2
July	57	14.3	621	147.2	107	49.0
August	172	43.0	608	156.2	64	24.3
September	50	112.5	463	120.3	142	63.8
Monthly Avg	132	33.0	545	138.0	108	47.4

Results

Admitting Departments	Endocrine – Time spent (%)
Heart & Lung	31%
Acute Care (Neurosurgery, Gastrosurgery, Gastroenterology, Orthopedics, Emergency, Stroke, Renal)	26%
Rehab, Caritas, Drug & Alcohol	9%
Oncology & Immunology	8%
Geriatrics	4%
Endocrine/Diabetes	22%

} 78%

Conclusion

- The barcode activity scanning has been well received by all staff
- It has delivered an accurate capture of the Endocrine/Diabetes Service inpatient consultation activity
- Linkage to the patients administration platform allows identification of private patients in the Public Hospital
- Inpatient activity data may assist in staff cost recovery from other admitting departments
- Business case to increase inpatient staff resources to cope with the continuously increasing demand to manage diabetes on the wards