Identifying Measures for Improvement through the use of Driver Diagrams

Denis O'Leary
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11.30 CONFERENCE WORKSHOP

Identifying Measures for Improvement Through the use of Driver Diagrams

— Driver diagrams application to the surgical patient pathway

— Using driver diagrams as a tool for quality, safety & efficiency

— Developing measures for improvement with real examples

Denis O'Leary, Senior Project Manager,
Ballarat Base Hospital, Victoria

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Acknowledge

Robert Lloyd and IHI for some **slides used in this presentation**

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Systems

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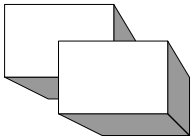
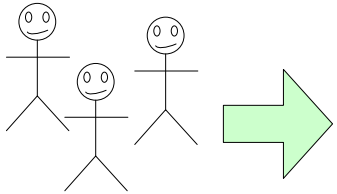
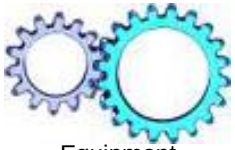
Inputs



Materiel



Participants



Equipment

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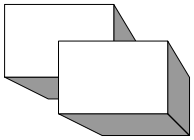
Inputs

Processes



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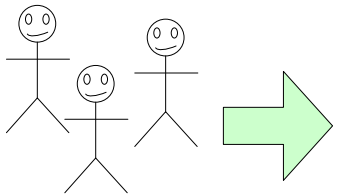

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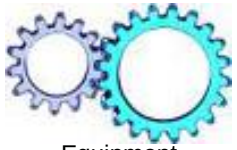

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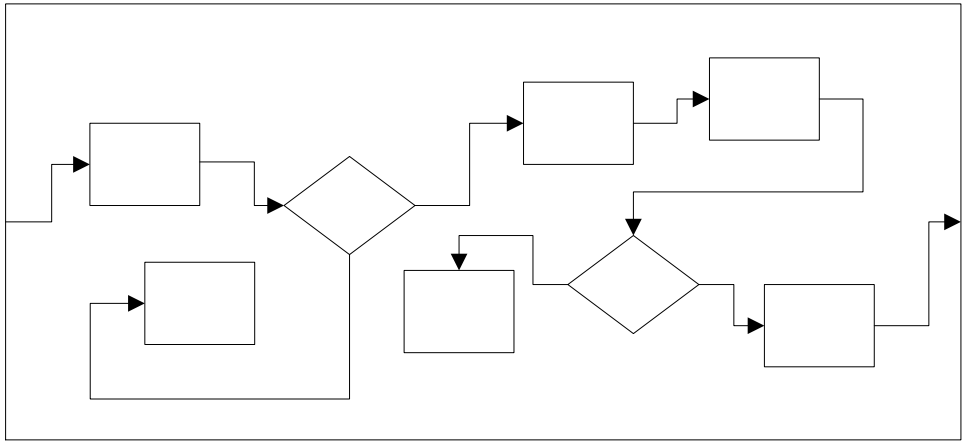

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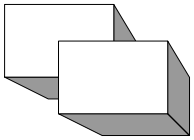
Inputs

Processes

Outcomes



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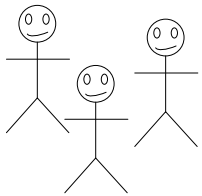

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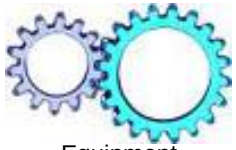

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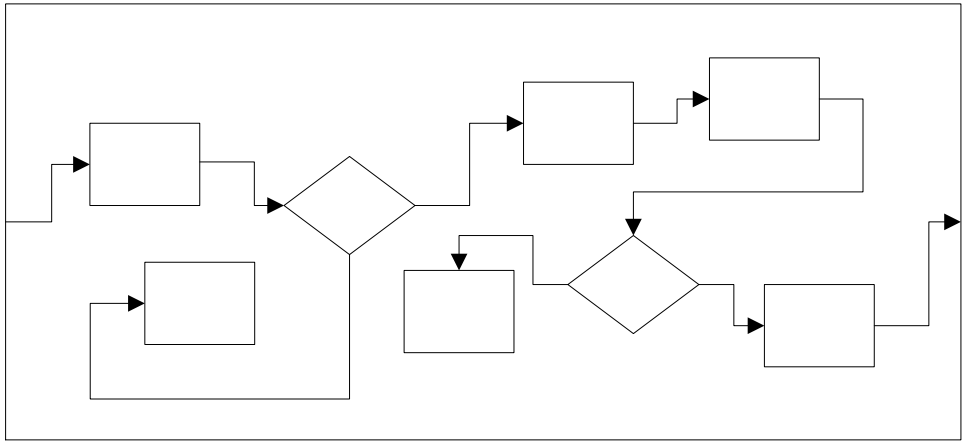

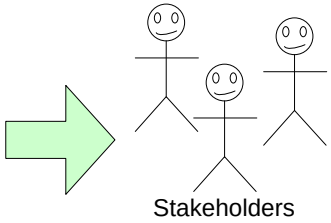

Stakeholders

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System Inputs

Material

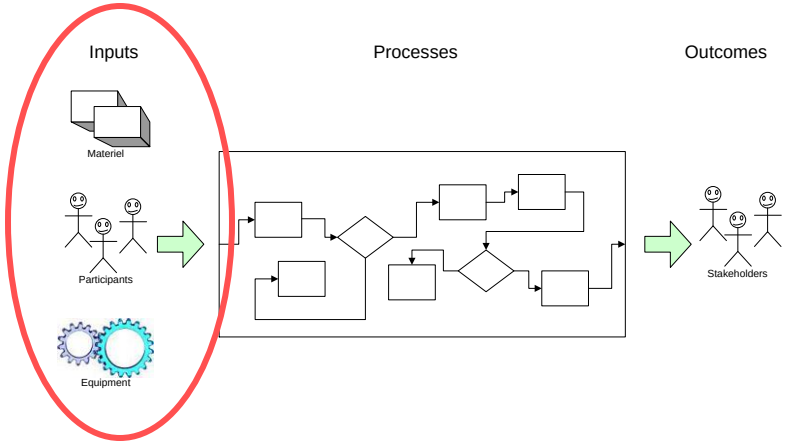
- Supplies
- Drugs

Participants

- Providers
- Staff
- Patients
- Management

Equipment

- Buildings
- Computers
- Medical equipment



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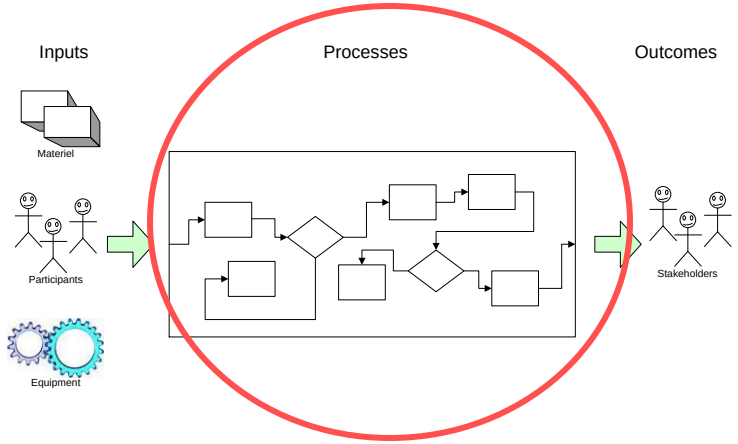
Processes

- **A series of activities and decisions that lead to outcomes**
  - **Standard Operating Practices**
  - **Patient encounters**
  - **Clinical protocols**



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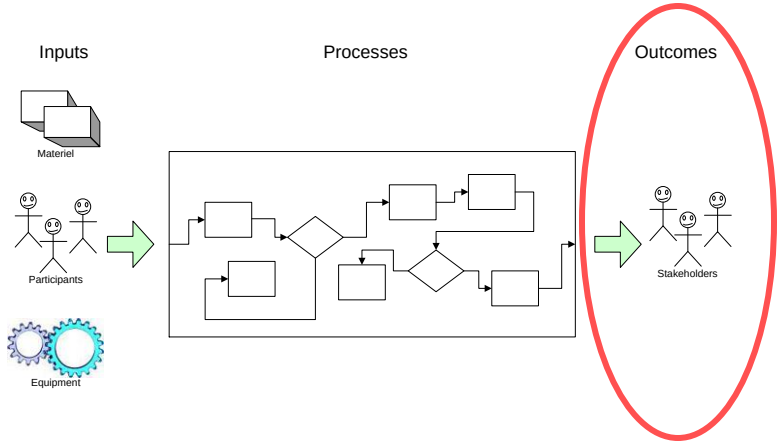
Outcomes

- **Outcomes are qualities that have *value* for Stakeholders**
  - **Most participants**
  - **Patients**
  - **Public**
  - **Media**
  - **Board of Directors**
  - **Department of Health**



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It’s important to define the system that you’re trying to work in, and that system can be defined very nicely through something called a driver diagram. The driver diagram is a pictorial display of a system.

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Driver Diagrams

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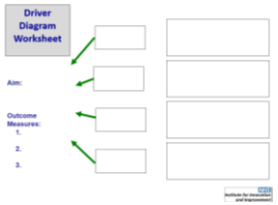
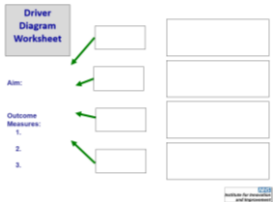
Driver Diagrams



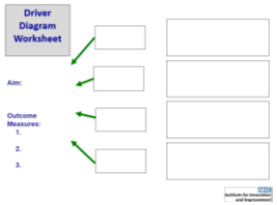
- **A driver diagram helps to focus on the cause and effect relationships that exist in complex situations. It provides a simple way to break down aims into well defined drivers that can then form the focus of efforts. It includes:**

Driver Diagrams



- **A driver diagram helps to focus on the cause and effect relationships that exist in complex situations. It provides a simple way to break down aims into well defined drivers that can then form the focus of efforts. It includes:**
  - **The aim or goal of the effort (which can be taken from the aim statement). Where appropriate, a number of aims may be shown on the same driver diagram.**

Driver Diagrams



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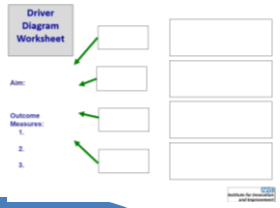
  - **The primary drivers which are the system components that contribute directly to the chosen goal or aim**

Driver Diagrams



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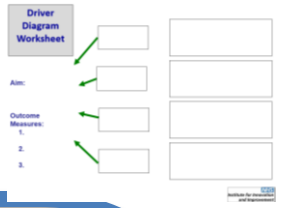
  - **The secondary drivers which constitute elements of the primary drivers which can be used to create change projects**

Driver Diagrams



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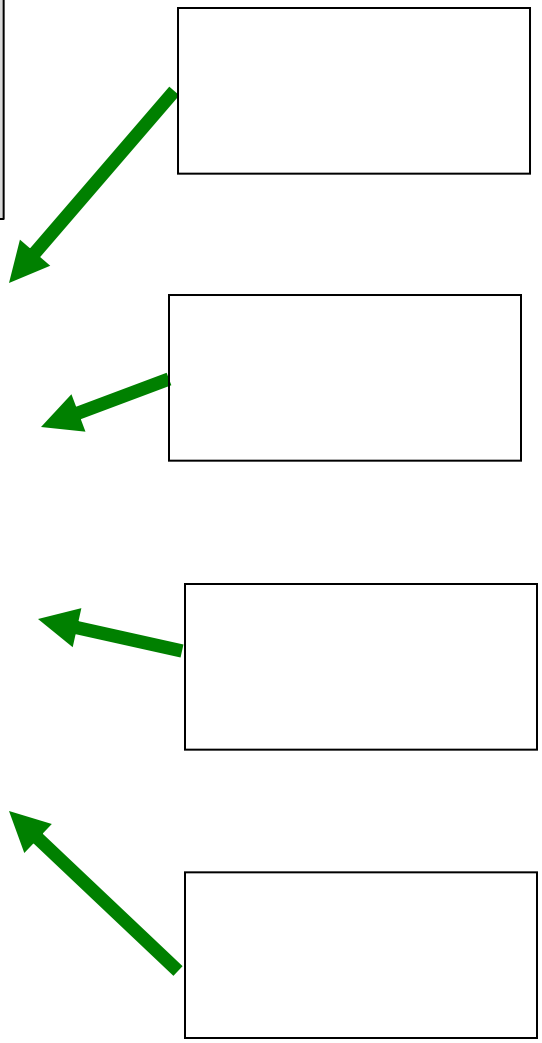
  - **The aim or goal of the effort (which can be taken from the aim statement). Where appropriate, a number of aims may be shown on the same driver diagram.**
  - **The primary drivers which are the system components that contribute directly to the chosen goal or aim**
  - **The secondary drivers which constitute elements of the primary drivers and which can be used to create change projects**
  - **The relationship arrows which show the connection between the primary and secondary drivers. A single secondary driver may impact upon a number of primary drivers.**

Driver Diagram Worksheet



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Example(s)

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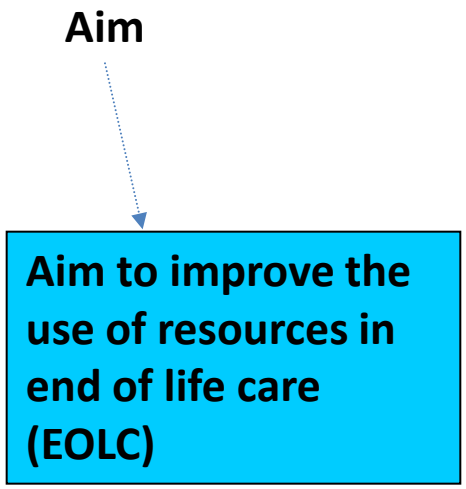
An example of a driver diagram



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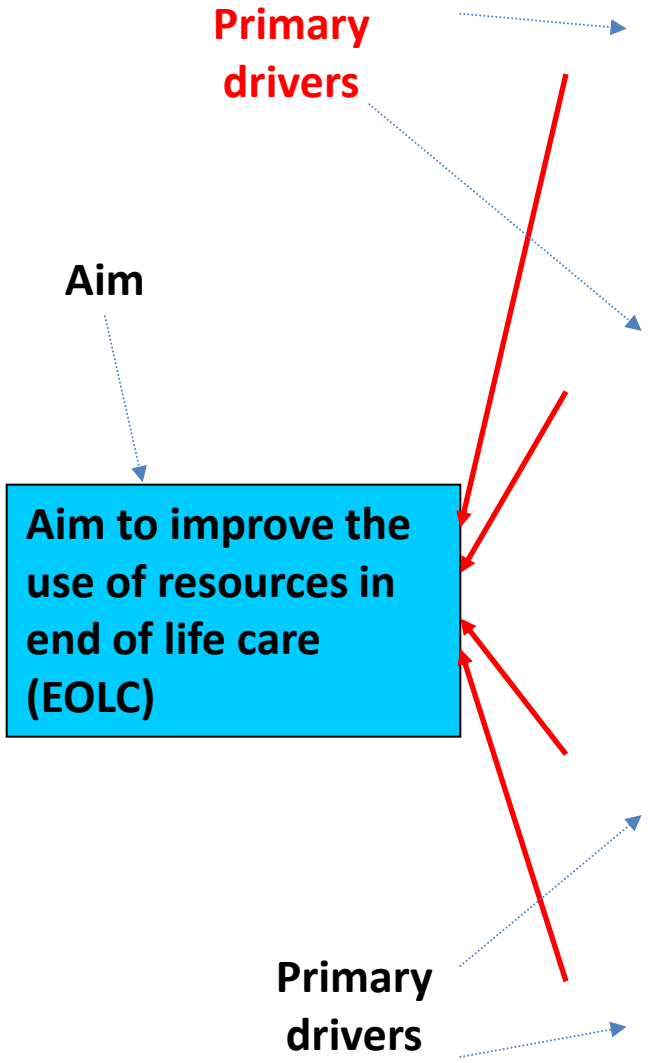

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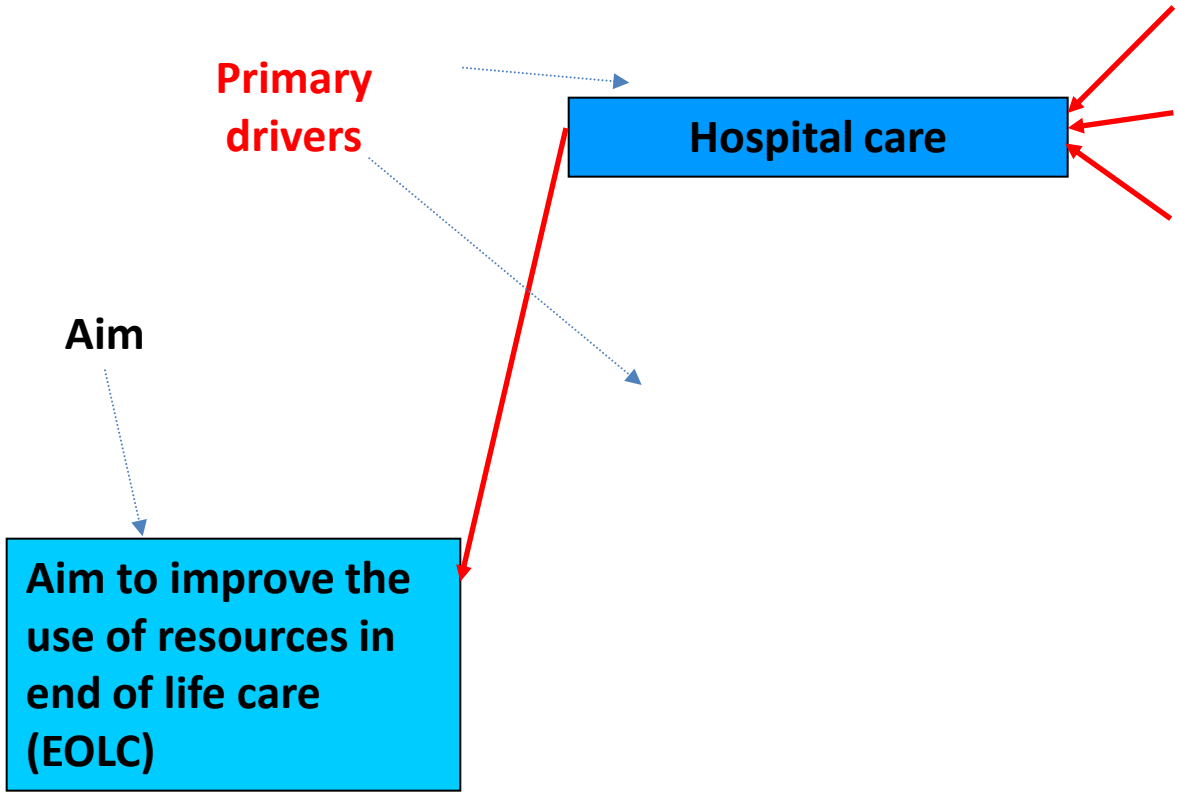
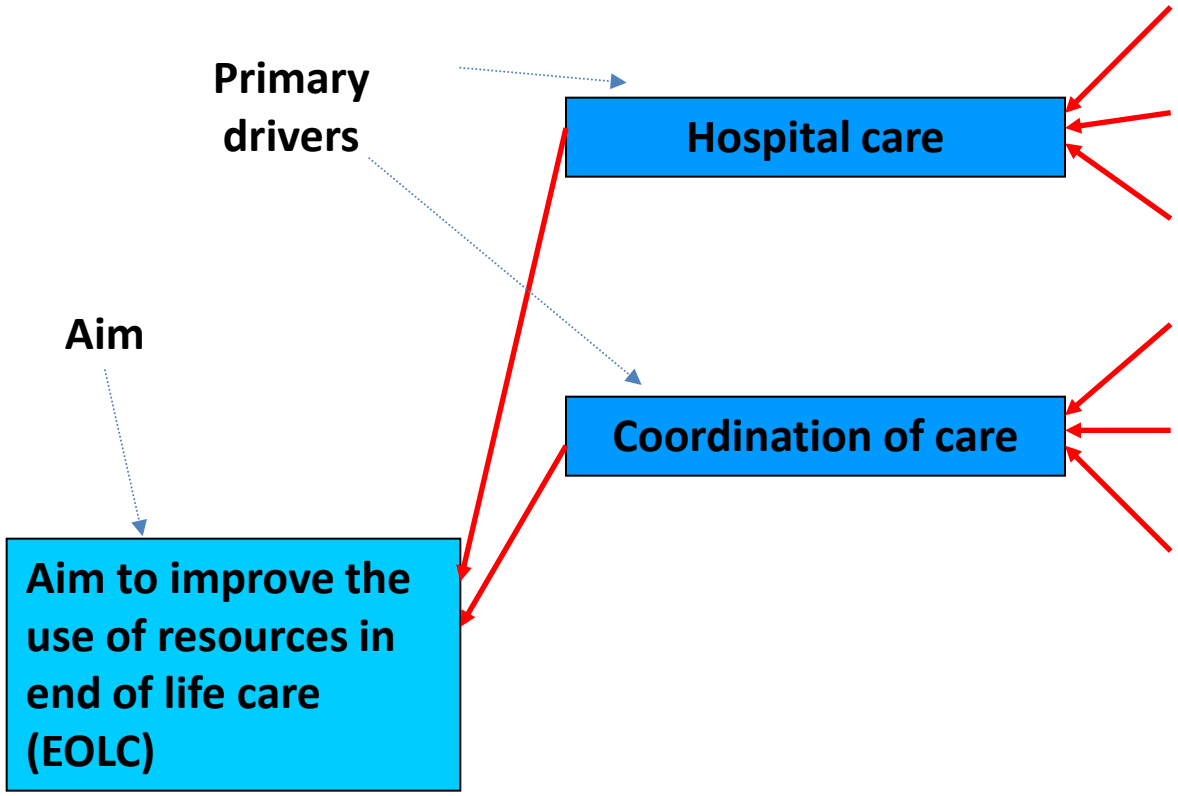


Primary drivers

An example of a driver diagram



Primary drivers

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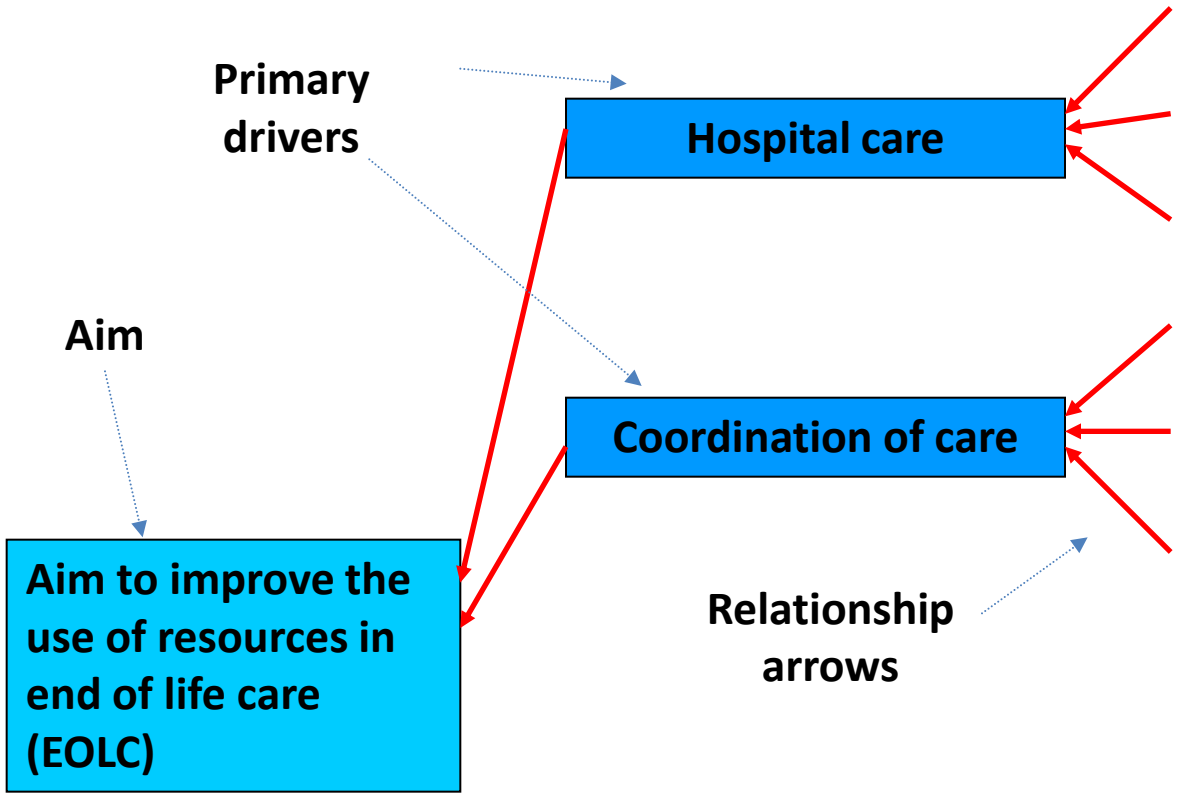

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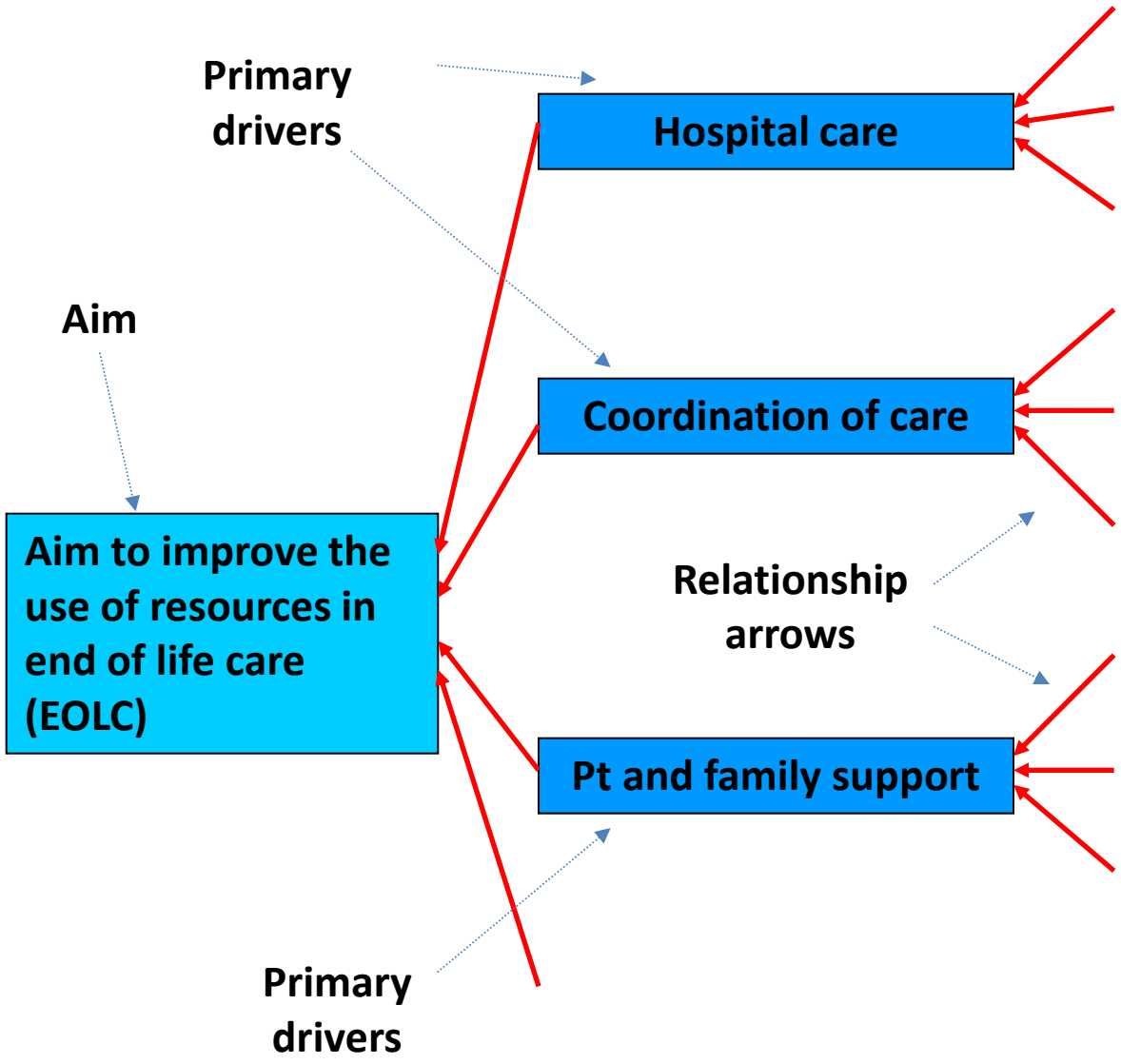

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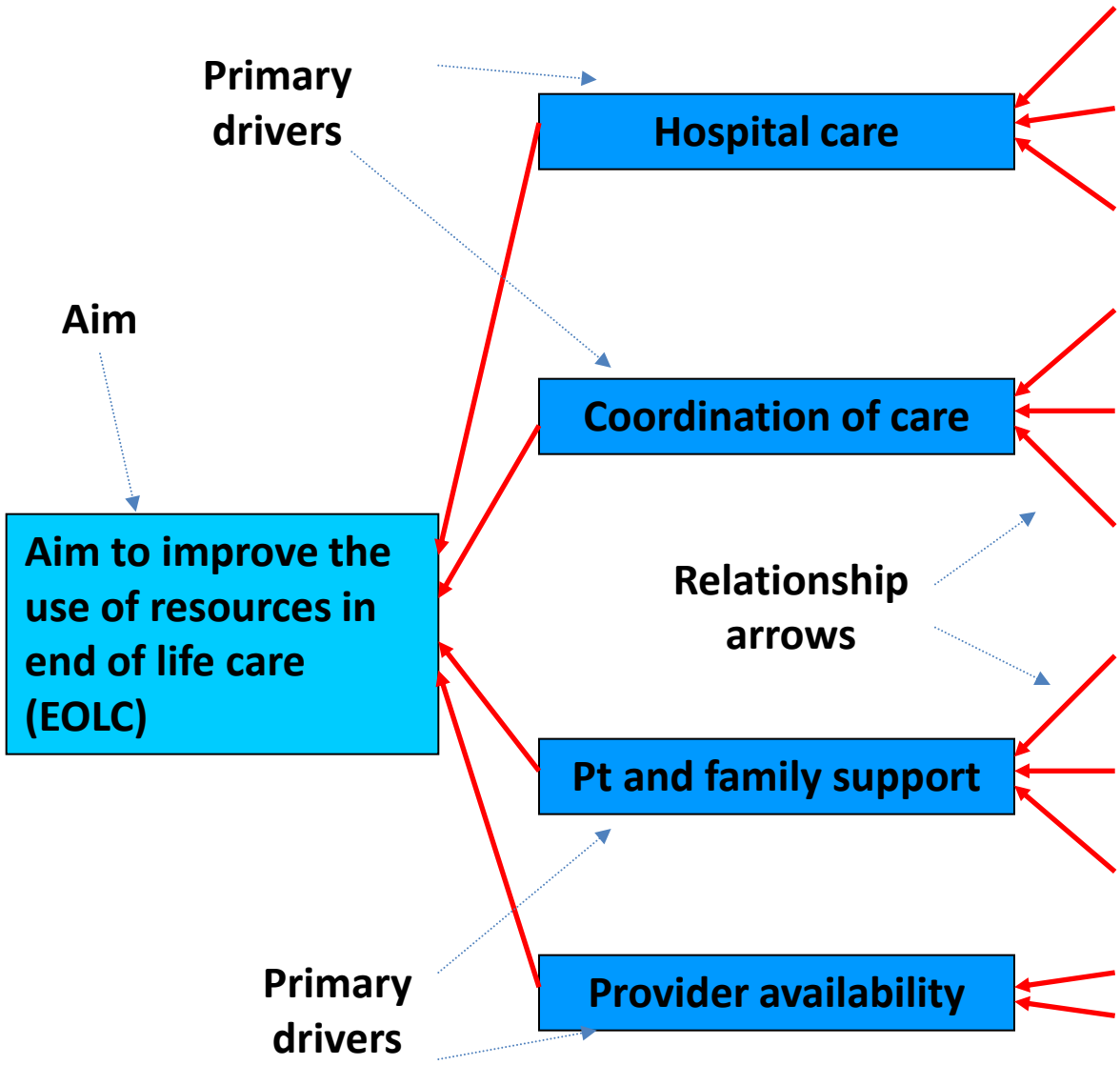

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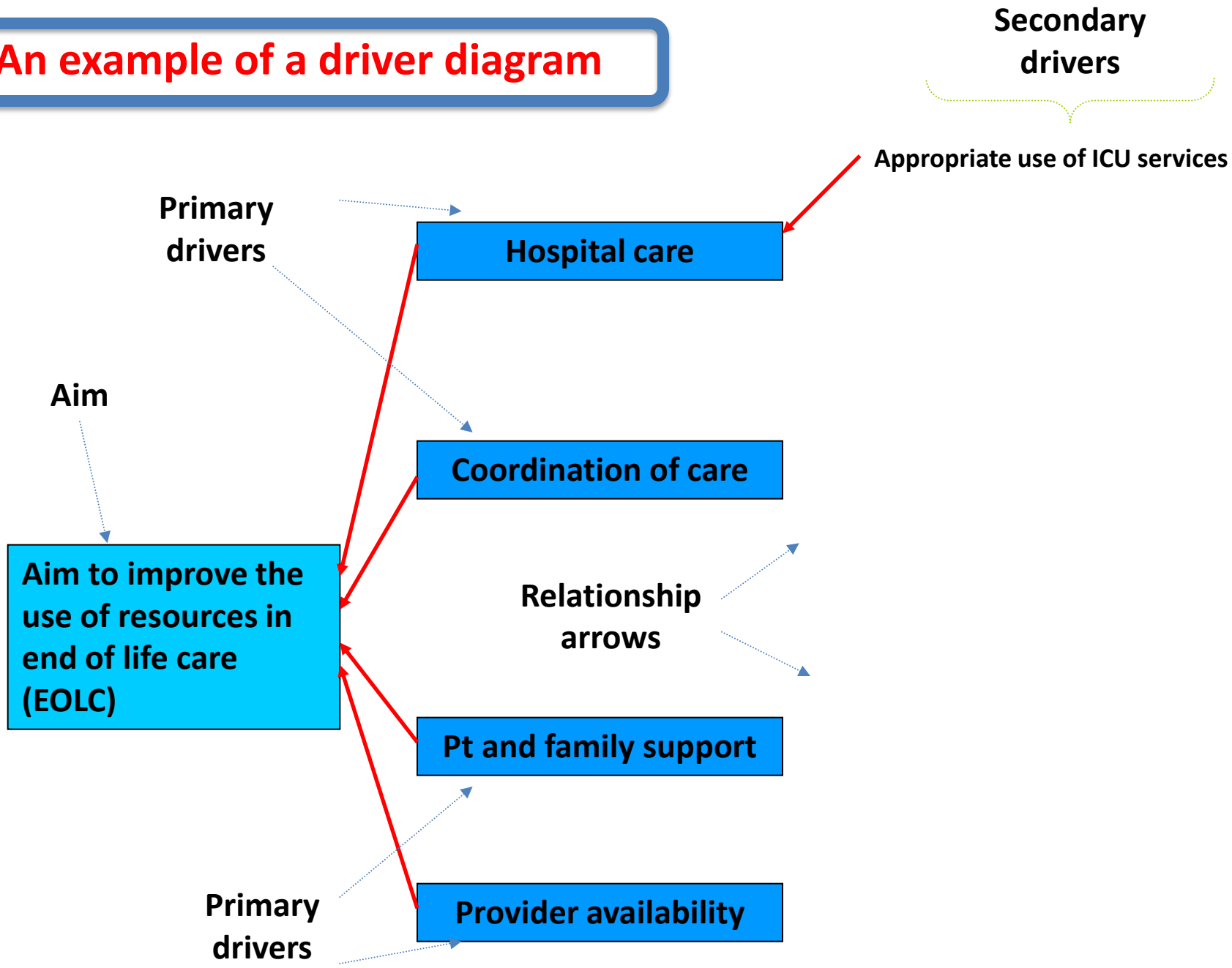

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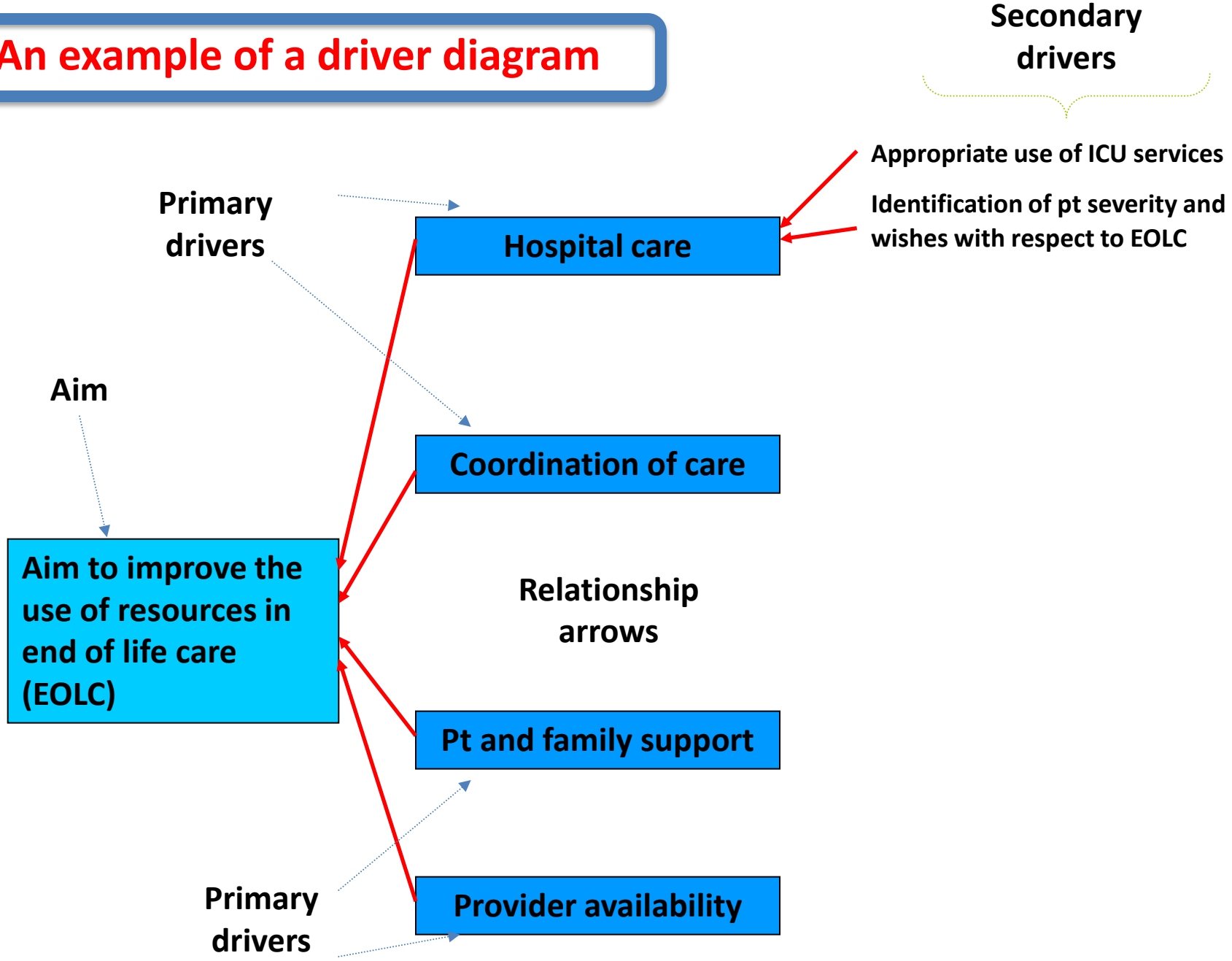

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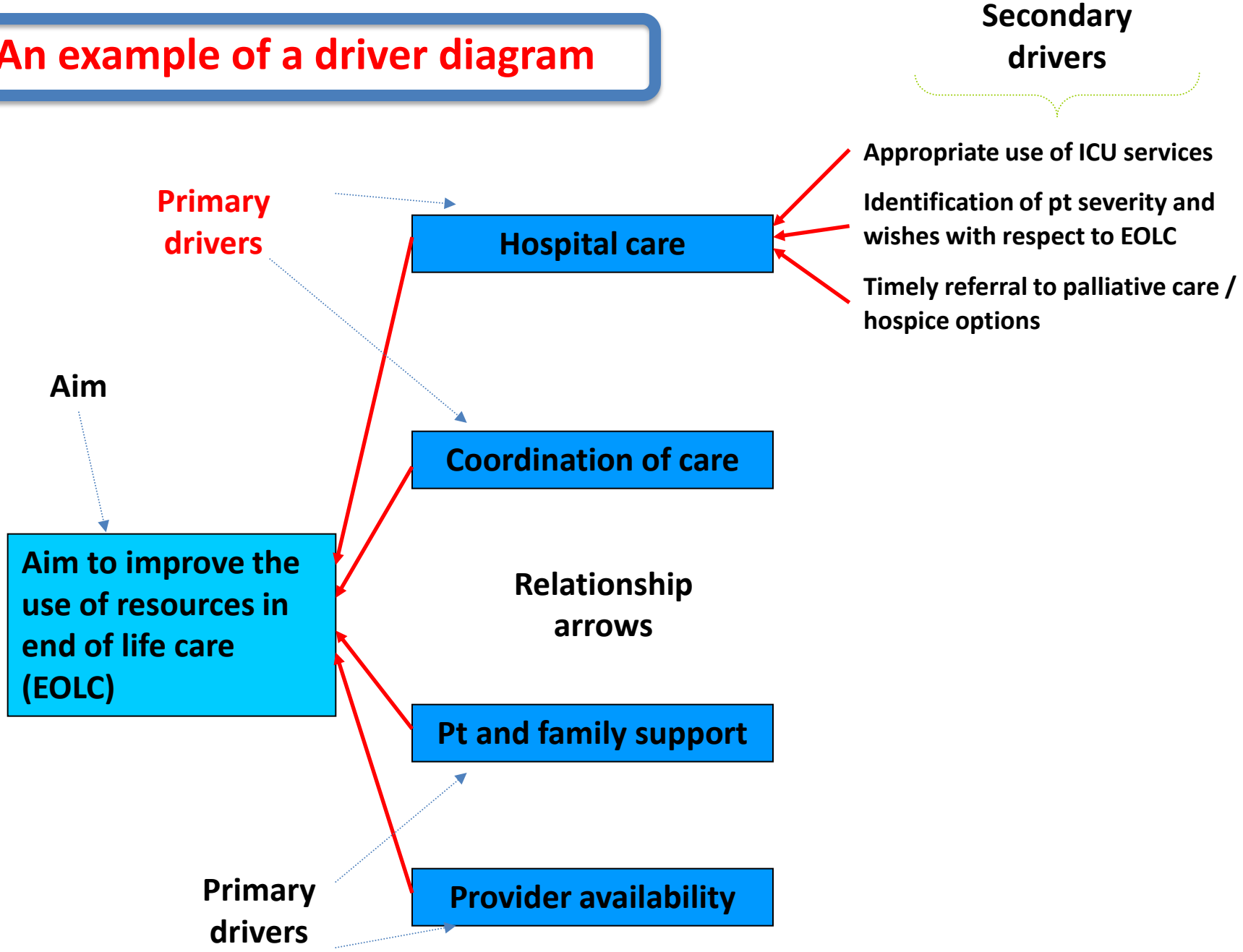

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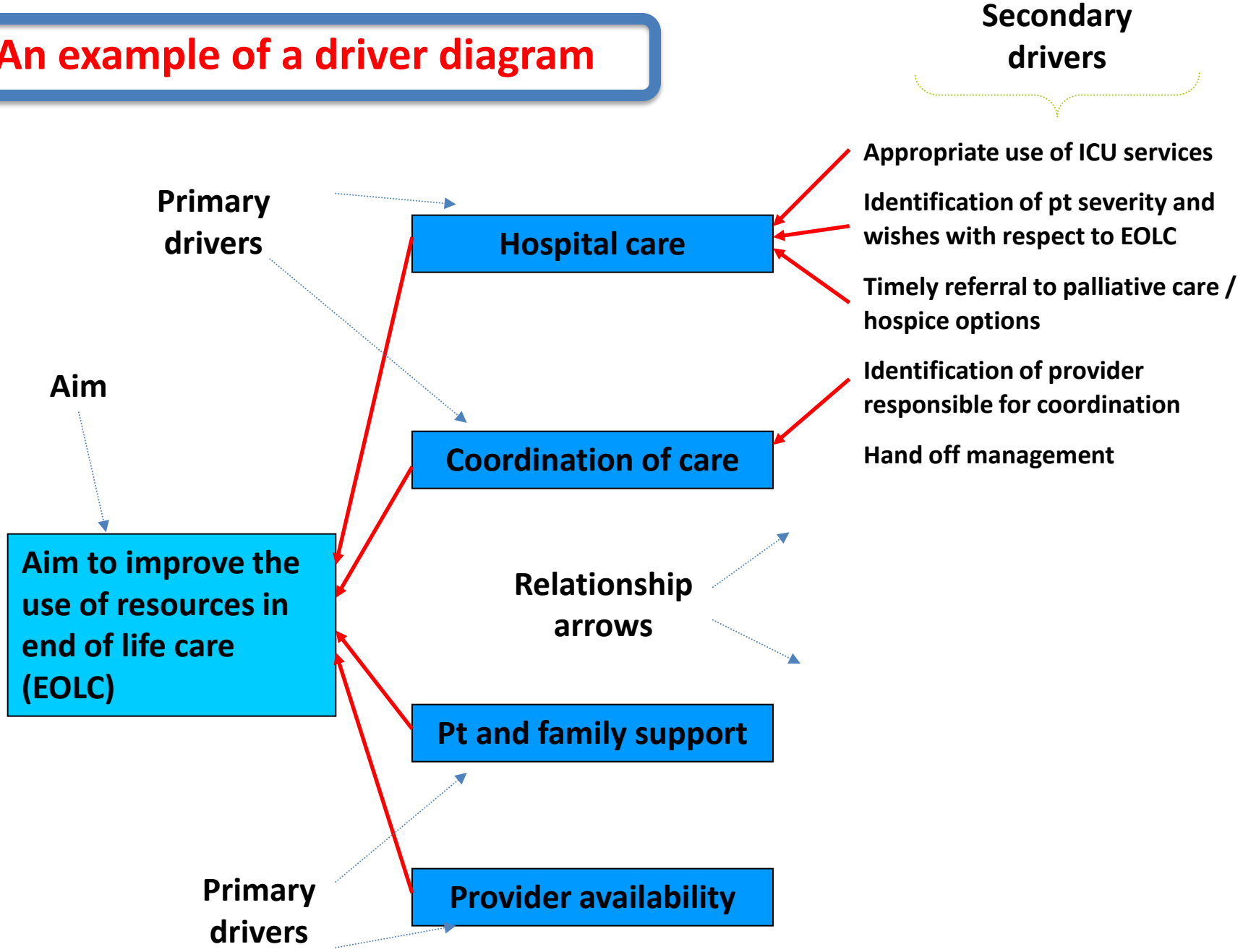

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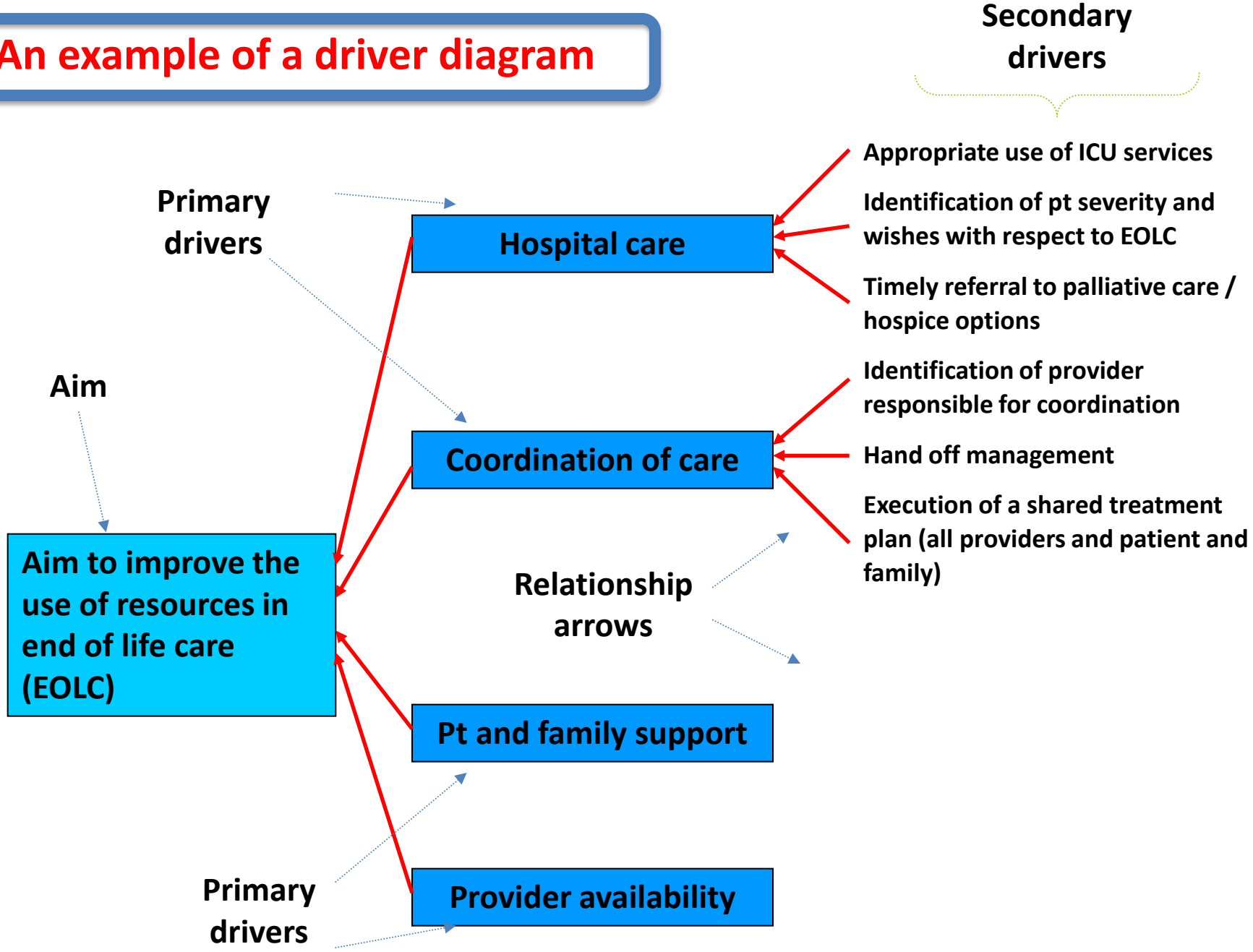

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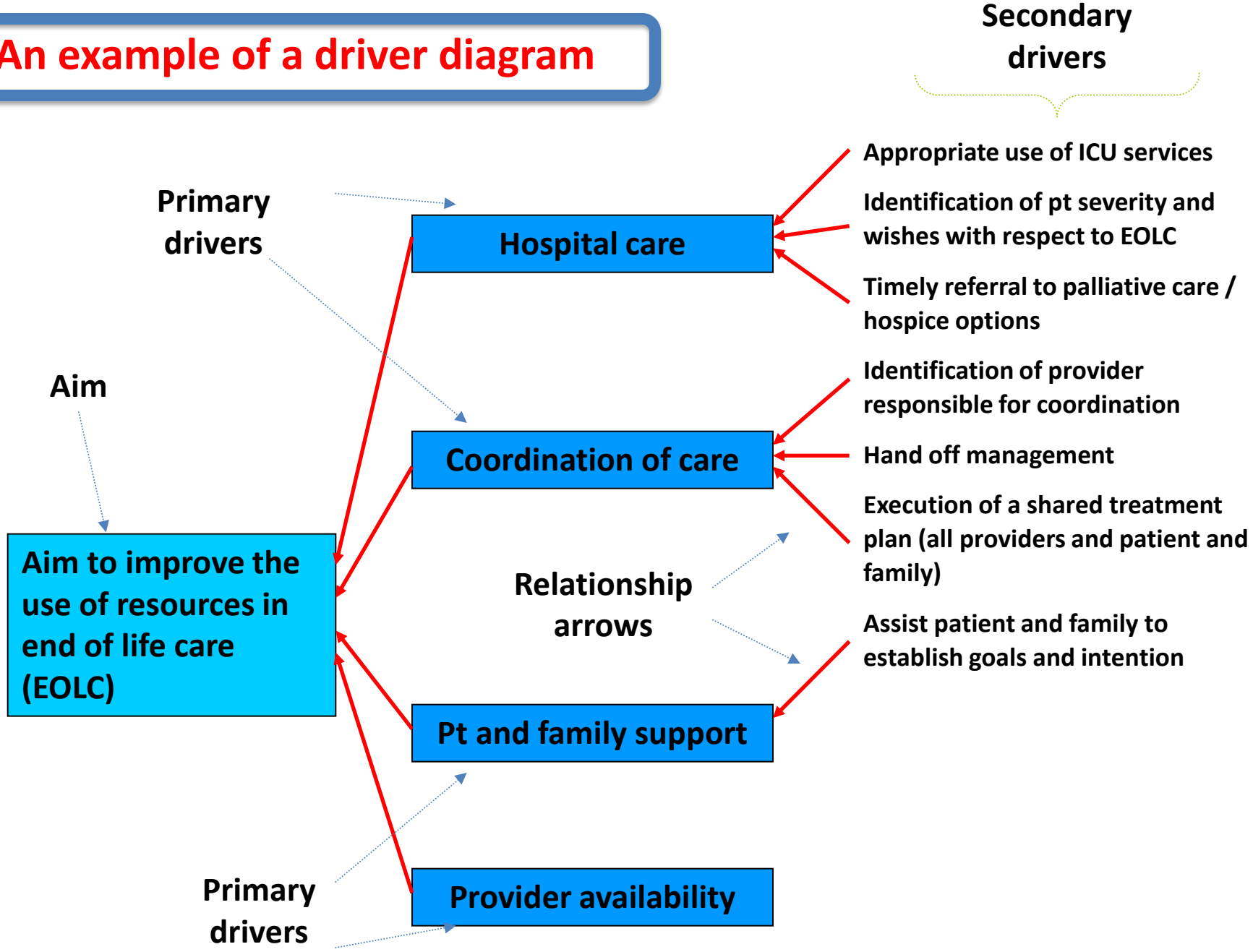

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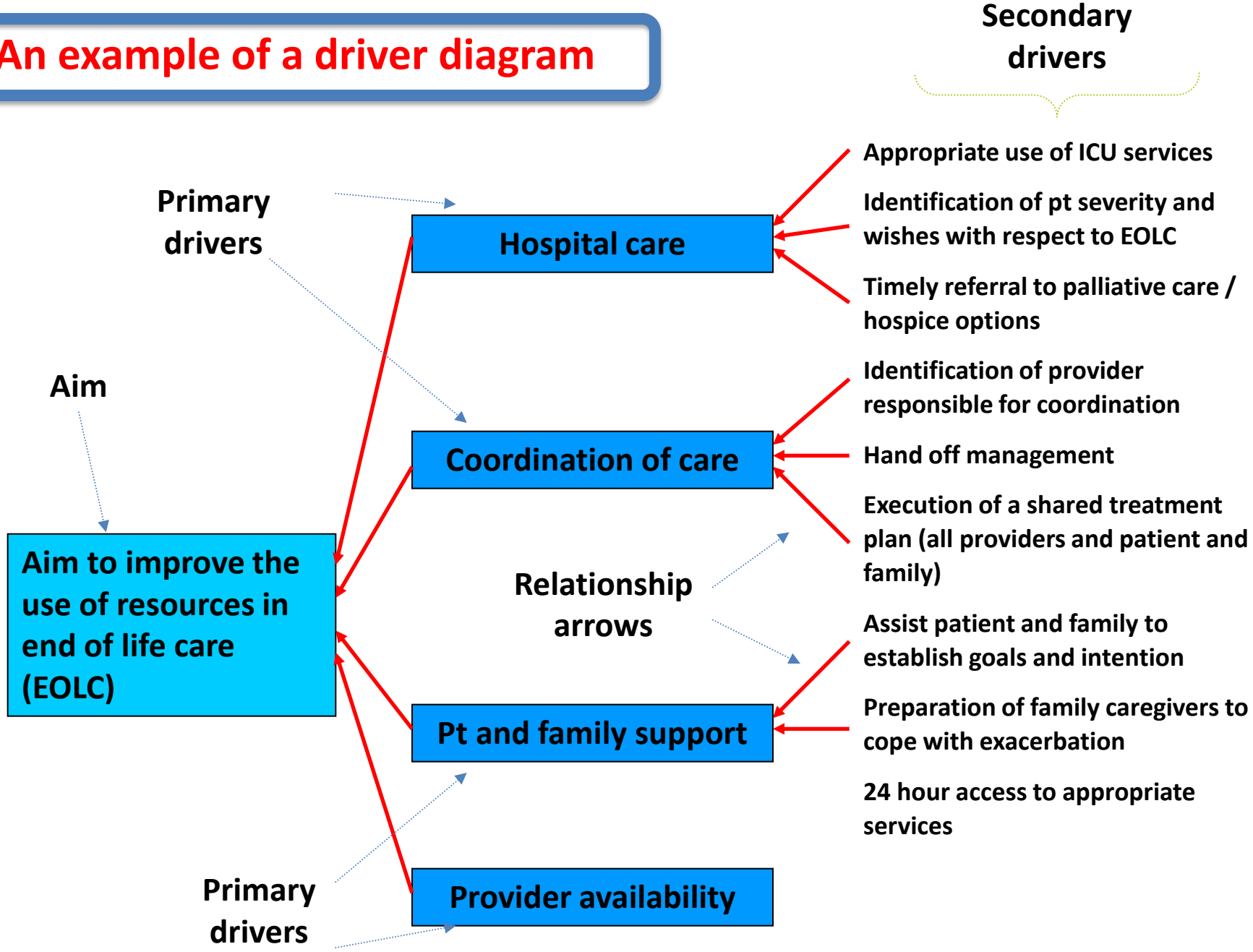

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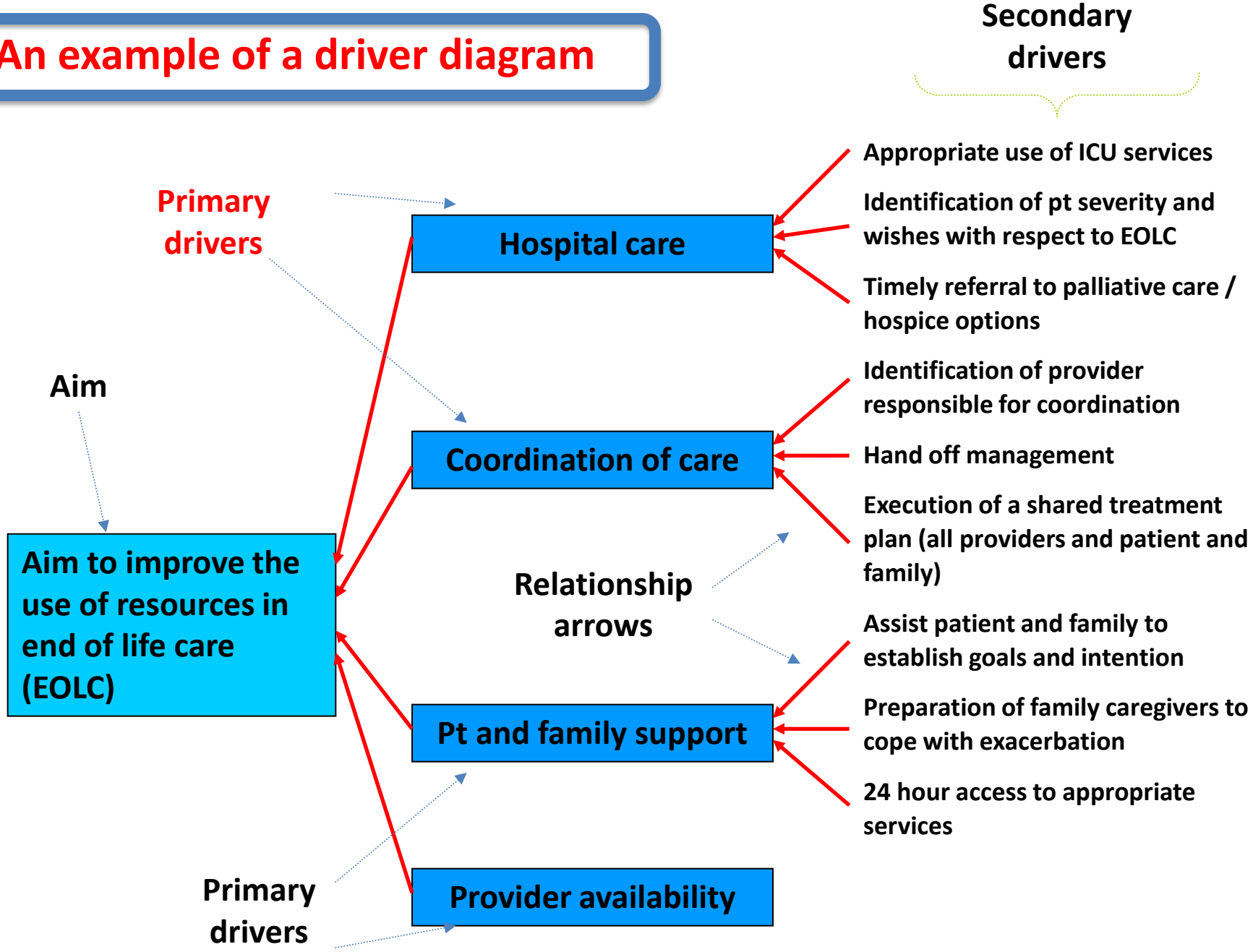

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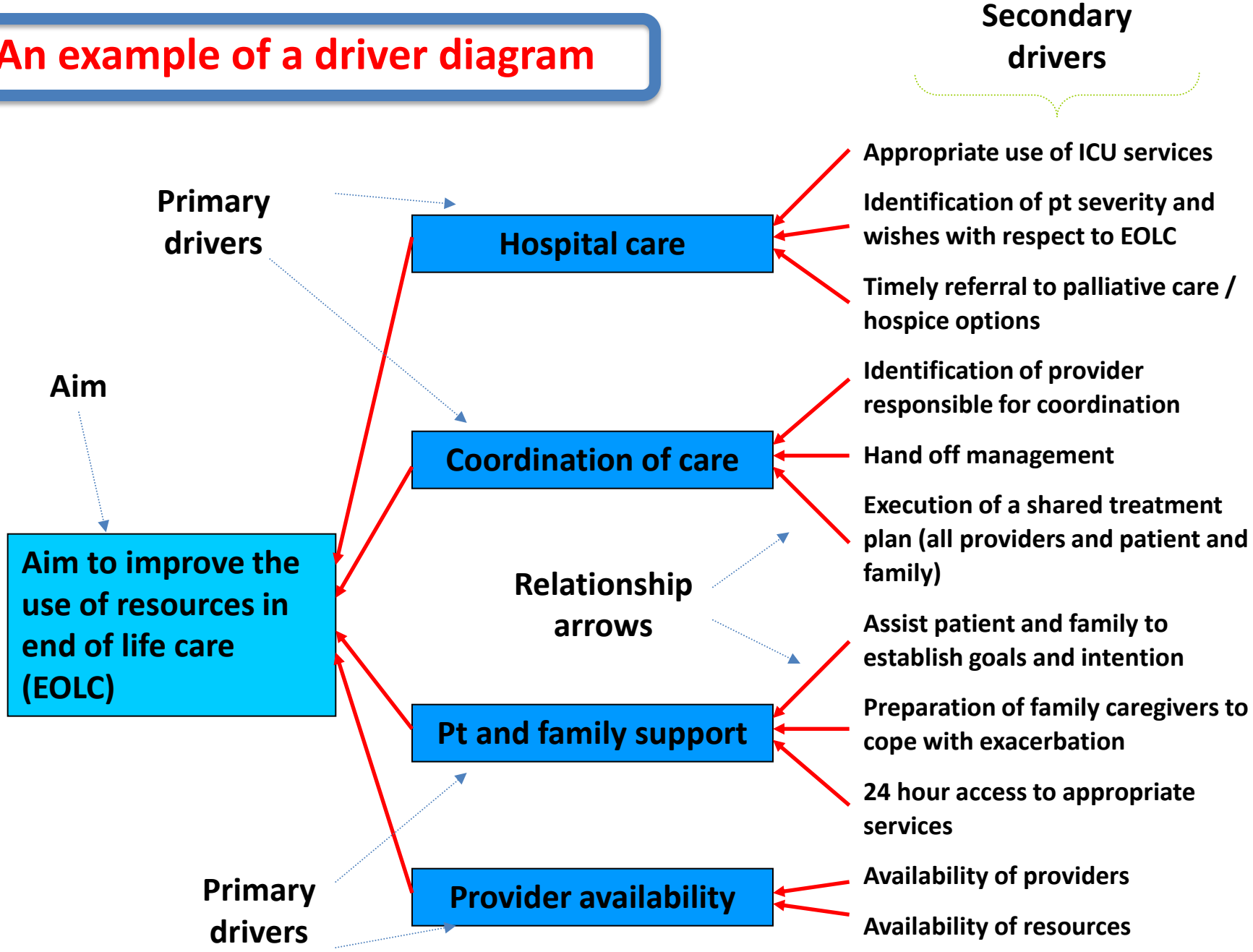

Elements of a driver diagram link together Cause and Effect

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Elements of a driver diagram link together Cause and Effect

If we take just one primary driver " Coordination of Care" and its associated secondary drivers we can see the cause and effect linkages

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Elements of a driver diagram link together Cause and Effect

If we take just one primary driver " Coordination of Care" and its associated secondary drivers we can see the cause and effect linkages

Poor handover management

Poor execution of a shared treatment plan

Not identifying a coordinating provider

CAUSE

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Elements of a driver diagram link together Cause and Effect

If we take just one primary driver " Coordination of Care" and its associated secondary drivers we can see the cause and effect linkages

Poor handover management

Poor execution of a shared treatment plan

Not identifying a coordinating provider

CAUSE

Contributes directly to . . .

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Elements of a driver diagram link together Cause and Effect

"This action can Cause"

If we take just one primary driver " Coordination of Care" and its associated secondary drivers we can see the cause and effect linkages

Poor handover management

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CAUSE

Contributes directly to . . .

Poor coordination of care

EFFECT

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Elements of a driver diagram link together Cause and Effect

If we take just one primary driver " Coordination of Care" and its associated secondary drivers we can see the cause and effect linkages

Poor handover management

Poor execution of a shared treatment plan

Not identifying a coordinating provider

Contributes directly to . . .

Poor coordination of care

Which contributes directly to . . .

CAUSE

EFFECT

CAUSE

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Poor handover management

Poor execution of a shared treatment plan

Not identifying a coordinating provider

Contributes directly to . . .

Poor coordination of care

Which contributes directly to . . .

Higher use of resources in end of life care

CAUSE

EFFECT

CAUSE

EFFECT

An example of selected elements of a driver diagram with some associated measures

Aim to reduce the burden of dental disease

Measures can be created all across the driver diagram to create a system of linked measurements

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An example of selected elements of a driver diagram with some associated measures

Aim to reduce the burden of dental disease

% of pts with new cavitation

Measures can be created all across the driver diagram to create a system of linked measurements

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An example of selected elements of a driver diagram with some associated measures

Aim to reduce the burden of dental disease

- % of pts with new cavitation
- % of patients complaining of pain

Measures can be created all across the driver diagram to create a system of linked measurements

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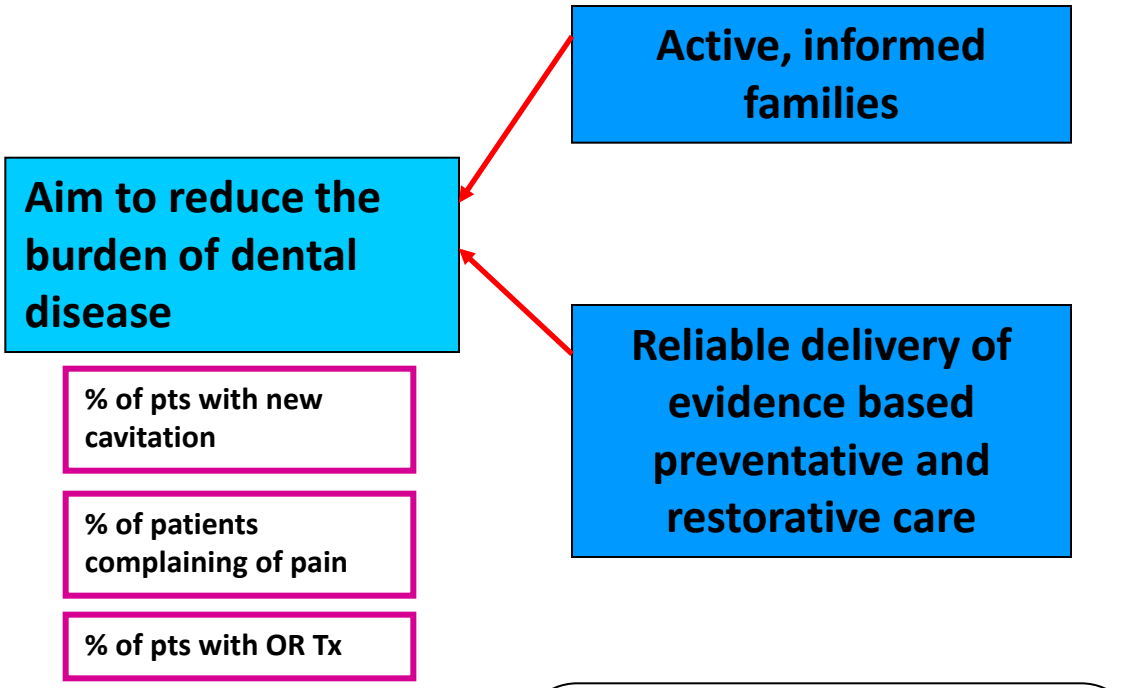
An example of selected elements of a driver diagram with some associated measures

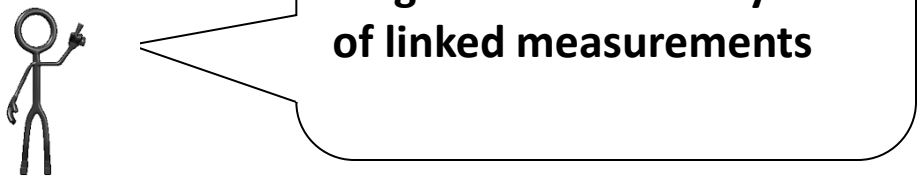
Aim to reduce the burden of dental disease

- % of pts with new cavitation
- % of patients complaining of pain
- % of pts with OR Tx

Measures can be created all across the driver diagram to create a system of linked measurements

An example of selected elements of a driver diagram with some associated measures





An example of selected elements of a driver diagram with some associated measures

Patient self management

% of pts with a self mgmt plan

Active, informed families

Aim to reduce the burden of dental disease

Reliable delivery of evidence based preventative and restorative care

% of pts with new cavitation

% of patients complaining of pain

% of pts with OR Tx

Measures can be created all across the driver diagram to create a system of linked measurements

An example of selected elements of a driver diagram with some associated measures

Aim to reduce the burden of dental disease

- % of pts with new cavitation
- % of patients complaining of pain
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Active, informed families

- Patient self management
  - % of pts with a self mgmt plan

Reliable delivery of evidence based preventative and restorative care

- Early risk based evaluation and guidance
  - % of pts assessed for risk
- % of pts with regular care

Measures can be created all across the driver diagram to create a system of linked measurements

An example of selected elements of a driver diagram with some associated measures

Aim to reduce the burden of dental disease

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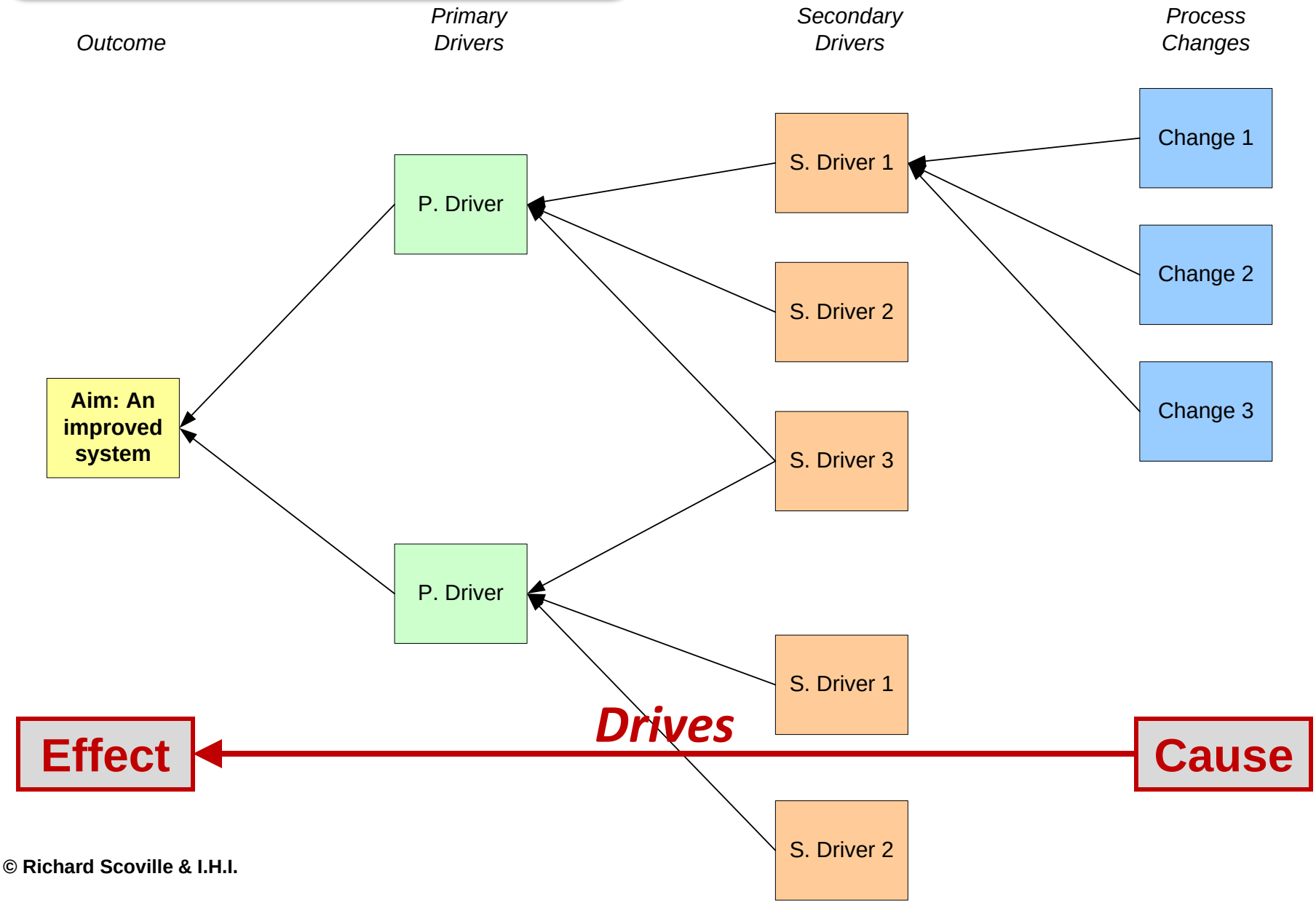
  - % of pts assessed for risk
  - % of pts with regular care
- Qualified OR Tx
  - % of pts with timely OR Tx

Measures can be created all across the driver diagram to create a system of linked measurements

What Changes Can We Make?

A Theory of How to Improve a System



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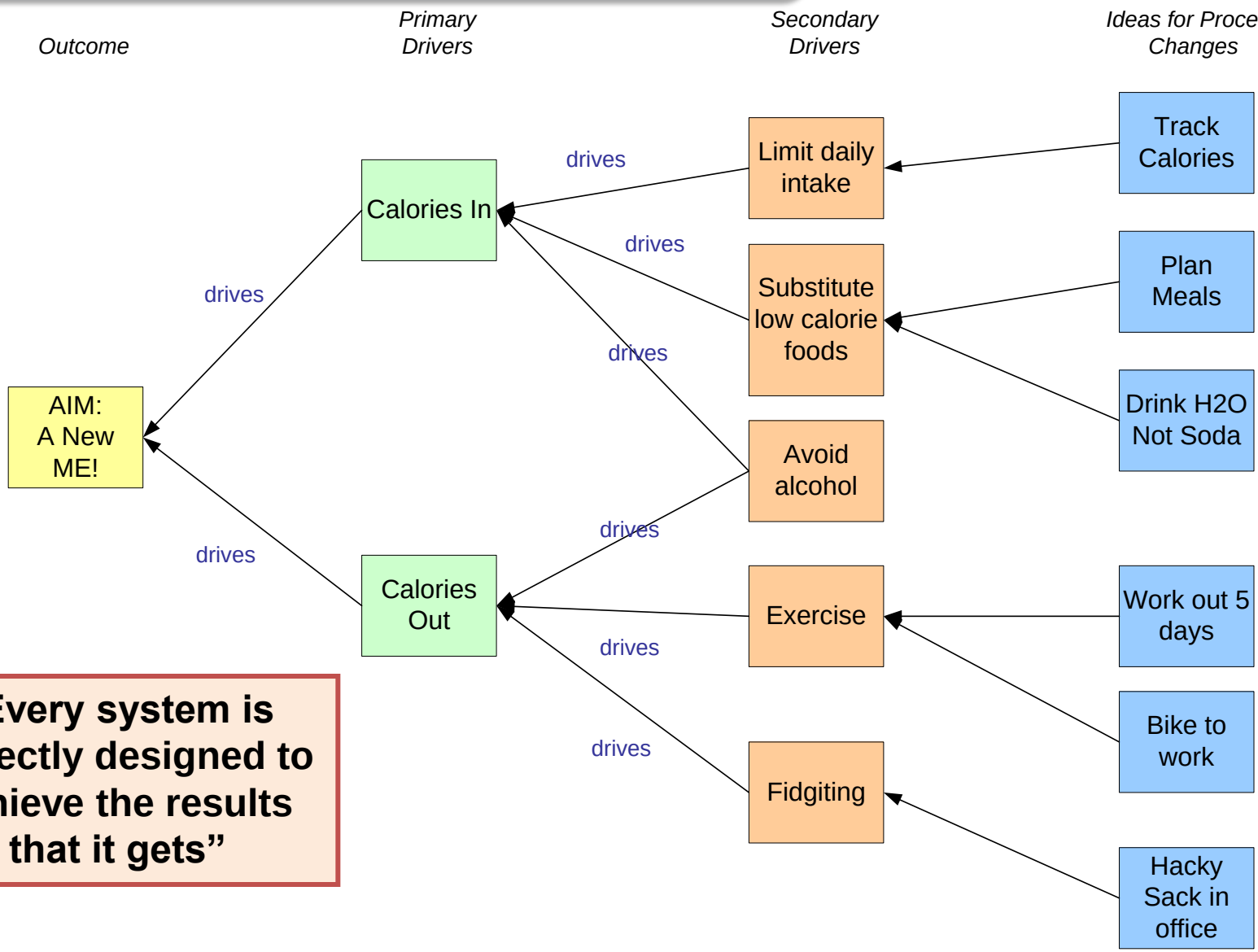
What Changes Can We Make?
Understanding the System for Weight Loss



"Every system is perfectly designed to achieve the results that it gets"

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How Will We Know We Are Improving?
Understanding the System for Weight Loss with Measures

Outcome

AIM:
A New ME!

- Weight
- BMI
- Body Fat
- Waist size

drives

Primary Drivers

Calories In

- Daily calorie count

Calories Out

- Exercise calorie count

drives

Secondary Drivers

Limit daily intake

- Avg cal/day

Substitute low calorie foods

- % of opportunities used

Avoid alcohol

- Avg drinks/ week

Exercise

Fidgiting

drives

Ideas for Process Changes

Track Calories

- Running calorie total

Plan

- Meals off-plan/week

Drink H2O Not Soda

- Sodas/ week

Work out 5 da

- Days between workouts

Bike to work

- Percent of days on bike

Hacky Sack in office

Etc...

Measures let us

- **Monitor progress in improving the system**
- **Identify effective changes**

Aim Statement

The Aim Statement helps to focus on what it is trying to accomplish. It provides a specific, measurable statement of intent. It identifies:

- **The boundaries of the system to be improved (i.e. the scope, patient population, the processes to change with their beginning and end points, the providers affected etc.)**
- **The numerical goals for the desired outcomes which are ambitious but achievable (i.e. goals are not set arbitrarily)**
- **The timeframe for achievement of the goal**
- **The guidance for the team which constrain or shape how the improvement is undertaken (e.g. in keeping with Department of Health guidance or local strategies, led by a sponsoring Director, linked to a reconfiguration proposal, focused upon a specific improvement strategy etc.)**

Ballarat Health Services
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An example Aim Statement

Boundary

Timeframe

Goal

Boundaries

In a pilot population, our hospital will decrease peri-operative harm by 25% within 1 year by focusing on prevention of surgical site infection (SSI) and implementation of pre-procedural briefings in orthopedic and vascular surgery.

Team: Leadership: Executive Director Surgical Services

Technical: Orthopedic surgeon

Guidance

Day-to-day: OR manager, surgical technician

Additional members: Safety specialist, nursing

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Your Turn!

Four Aim Statements

1. To undertake surgical procedures in a safe and effective manner which will result in a quality patient experience

2. To work in a learning and respectful environment in the Operating Suite that encourages excellent team work.

3. To provide to surgical patients an excellent patient experience

4. To deliver the Surgical Services agreed business plan for the financial year 2014 – 15.

Ballarat Health Services
Putting your health first

Aim: To provide excellent surgical care

Measures Outcomes

Patient Satisfaction

- Appointment/Scheduling — No cancellations, No overruns
- Patient Focus — Patient satisfaction results
- Information — Customer centered care; Consumer advisory

Positive experience

- Known expectations — Schedule planning; Elective versus emergency access
- Bed available — Informed consent, Handouts, Education

No adverse event

- Understanding procedure pain — Skills competency base
- Clinical Care — Clinical capability framework
- Clinical Expertise

Outcome:
Patients will their planned surgery – on time & date with no cancellation – no waiting & no adverse outcome & go home happy & provide staff with chocolates

To work in a learning and respectful environment in the Operating Suite that encourages excellent team work.

- **Organisation Culture**
  - Code of Conduct
    Unit Values
  - Ensured accountability
  - Core values
- **Teamwork**
  - Personal development
  - Clarity of roles & responsibilities
- **Education & Training**
  - Rounding & Feedback (communication)
  - Scope of practice - multiskill
- **Leadership**
  - Behavioural competency
  - Multidisciplinary Professional development
  - Performance management
    Role management

Outcome:

- Increased Operating Theatre Utilisation
- Decreased unplanned leave
- Decreased clinical incidents
- Increased staff retention
- Increased knowledge & skills

To work in a learning and respectful environment in the Operating Suite

that encourages excellent team work.

Communication

Values/Standards

Patient focus

Resources

- Huddle Escalate De-escalate
- Staff meetings
- Governance/Multi Discip
- Leadership
- Available
- Equity, Integrity
- Punctuality, Safety, Infection Control
- Training, education, evaluation
- Planning – List Session Preparation
- Patient flow

Outcome:
Efficiency
Staff Satisfaction
Patient Satisfaction

To provide to surgical patients an excellent patient experience

- **Schedule & Triage**
  - Separate elective & emergency
  - Resource management
  - Patient flow processes
- **Customer focus**
  - Communication systems
  - Timely treatment
- **Safe quality care**
  - Feedback – Patient Satisfaction
  - Target monitoring
- **Efficient**
  - Audit processes
  - Credentialing

Outcome:
- Patient satisfaction survey
- Length of stay
- Wait times
- Incident Monitoring

To undertake surgical procedures in a safe and effective manner which will result in a quality patient experience

Measures Outcomes

Personnel/Staff

- Skill mix
- Education & professional development
- Workforce availability

Assessment of workforce skill balance

Development of education plans that will support required service

Recruitment/attendance

Access to Facilities

- Equipment systems
- Services provided specialty

Survey relevant personnel re: equipment requirements

Consumer involvement Efficient

- Services provided theatre availability
- Bed availability/ Preadmission
- Point of Contact with Health Service
- Education Consumer expectation

To undertake surgical procedures in a safe and effective manner which will result in a quality patient experience

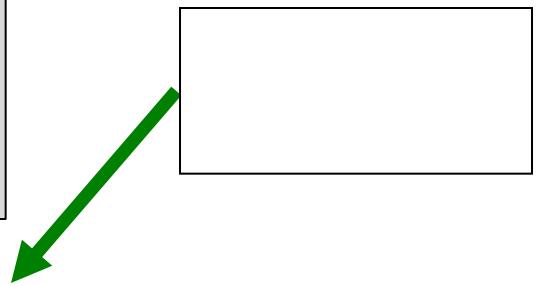
- Improve Patient Outcomes
- Safety
- Efficiency – lack of resources
- Quality staff

Outcome:
- Reduce incidents by 20%
- Reduce Length of Stay
- Safe environment – incident reports
- Increase Theatre Utilisation to 85%
- Patient Satisfaction experience

Measures Outcomes

Bed Access	Access block
	Number of beds
	Pieces of equipment
Equipment Communication	Start on time
	Cancellations
Staff & Skills	Bed occupancy
	Bed base
	Length of stay
Equipment Beds	Number of staff
	Sick leave
	ICU Acceptance
Education skills knowledge	Staff qualifications

Driver Diagram Worksheet



Aim:

Outcome Measures:

1.

2.

3.

Measures & their Build Up

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E0 **Executive Indicator**

23 **Director of Anaesthesia Indicator**

22 **Director Access & Ambulatory**

7 **DON Surgical Access**

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Putting your health first

Efficiency & Value Driver Diagram

Making efficient and best use of Resources

Aim	Driver	Intervention
Deliver plan to budget E0 E1	Run lists you plan to 22	Ensure lists filled appropriately 7
		Ensure correct patients available 22
		Ensure correct staff available
	Run lists to time 23	Have reliable process for fetching patients 24
		Ensure correct kit available 25
	Minimise delay between cases 8	Ensure start on time 26
		Minimise theatre turnaround time 26
	Make similar procedures more consistent 7	Minimise interruptions (Recovery closure – emergency interruptions 27
		Ensure right kit to hand 7

E0 Start on Time
E1 Contact Hour per Session/Day
7 % correct kit to hand
8 % usable kit
22 % patients lost from theatre list (all reasons)
23 Direct care time (Needle to skin => In recovery)
24 Late starts
25 Early finishes
26 Turnaround time (In Recovery => Needle to skin)
27 Number of glitches (interruptions, messages, phone calls)

Measure used only in this domain

Other Measure

- **Efficiency**
  - Unused Theatre and anaesthetic room Time (downtime)
  - total number of staff involves through day (new staff, break cover, etc)
  - Additional equipment and packs used per day/case
  - Theatre utilisation (used sessions by speciality)
  - Session utilisation (actual time used on session)

URN		Fin Year		Diagnosis Desc
Admission Key		Week		Procedure
Age On Admission		Surgery Start Time		Procedure Desc
Sex		Surgery End Date		CMBS
Postcode		Year		CMBS Desc
Admit Group		Day		WIES
Admit Ward		Month		OPERATION TYPE
Financial Class		Surgery End Time		Late Start
Admisson Date		Left Date		PRIORITY
Admis Time		Left Time		ADMISSION TYPE
Discharge Date		Depart Time		PPP
Discharge Time		Anaes Time		PPP DESCRIPTION
Same Day Flag		Surgeon Time		Day - 2
LOS		OR Time		Admission Hr.
Unit		OR Hours		Discharge Hr.
Operation Date		Surgeon Code		Time Out Hr.
Operation No		First Surgeon		Anaes. Start Hr.
Theatre		Surgeon 1		Surgery Start. Time
Session Group		Surgical Registrar 1		Surgery Finish Time
Session Code		Anaesthetist Code		Left OR Hr.
Specialty		Anaesthetist		Depart Hr.
Call Time		iPM Anaesthetist Status 1		Recovery Time
Arrival Time 1		Anaesthetic Type		Period 2
Time Out		ASA Score		Recovery Hr.
Anaes Date		Wound Classification		DRG 2
Anaes Start		WList Rprt Status		Time to Surgery
Time Period		DRG		Contact Hours
Anaes Hr.		DRG Description		WIES Y/N
Surgery Start		Diagnosis		

These are the types of fields I commonly obtain from Health Services –Green Fields are derived

Surgeon Session Characterisitcs

Surgeon	Wed
Session	37
Patient	228
Contact Hrs	100
WIES	166
Patient perSession	6.16
WIES per Patient	0.73
Contact Hr. per Session	2.71
Contact Hr. per Patient	0.44
Avg. Surgery Start	8:16
Avg. Left OR	11:39

From the data you can look at a Surgeon's Session characteristics – I suspect most Health Services do not do this – this data could also be used for performance review – the data can also be used to build up the schedule

d Health Service Theatre Suite Schedule July 14- Aug 14- Sep 14

Week Beginning	Year	FIN Year Week	OR	Mon				Tue				Wed				Thu				Fri	
	Week	WEEK		AM	PM	AM Hr	PM Hr	AM	PM	AM Hr	PM Hr	AM	PM	AM Hr	PM Hr	AM	PM	AM Hr	PM Hr	AM Hr	PM Hr
6/30/2014	27	1	OR 1			0	0			0	0			2.21	0			3.7	2.444	3.7	0
			OR 2			0	0			3.276	3.276			3.584	0			0	0	0	0
			OR 3			0	0			0	0			0	2.7			0	0	0	0
7/7/2014	28	2	OR 1			2.05	3.584			2.05	3.488			2.05	3.584			2.95	2.95	0	0
			OR 2			2.8032	2.444			3.276	3.276			0	0			0	0	3.392	0
			OR 3			2.7	0			2.7	2.7			0	2.7			2.7	2.7	0	0
7/14/2014	29	3	OR 1			3.488	3.488			0	0			2.21	3.584			0	0	0	0
			OR 2			0	0			3.276	3.276			3.486	3.486			0	3.486	0	0
			OR 3			2.7	2.7			0	0			0	2.7			2.7	0	0	0
7/21/2014	30	4	OR 1			0	0			0	0			2.444	0			2.95	2.95	0	0
			OR 2			2.8032	3.486			3.276	3.276			3.486	3.486			0	0	0	0
			OR 3			2.7	1.8			0	0			0	2.7			2.7	0	0	0

Schedule build up for the year based on average hours per session used by proceduralists

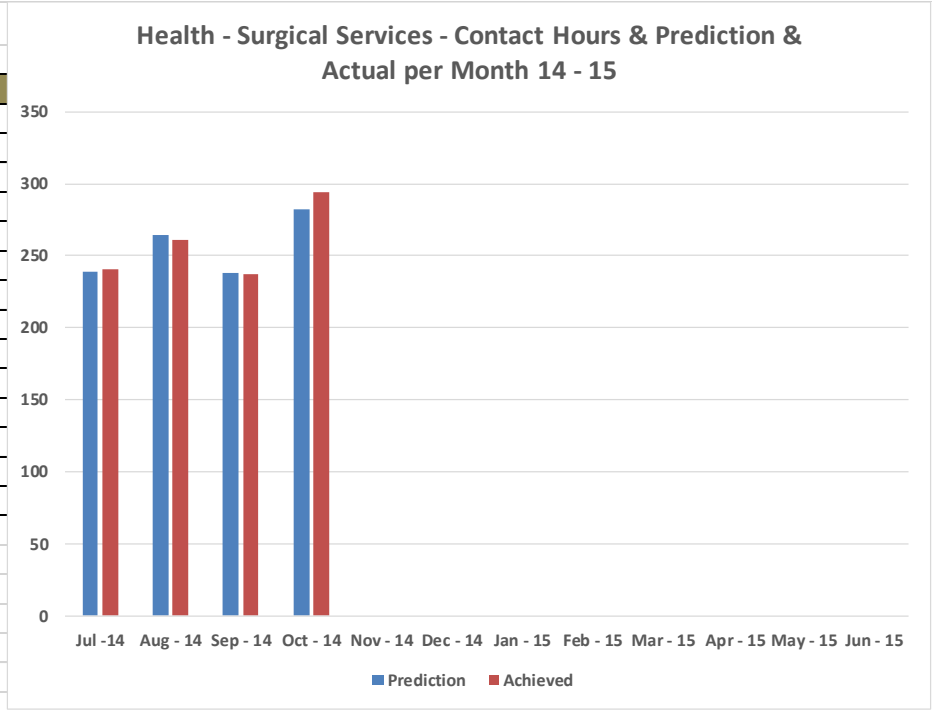
Modelling - WIES 14 - 15

Consultants		Pat. Session	Hrs per Patient	WIES per Patient	Hours per Session	Session	Contact Hrs	Patients	WIES
Consultant	Speciality								
	Obs&Gynae	3.2	1.09	1.24	3.49	20	69.76	64	79
	Obs&Gynae	3.2	1.12	0.94	3.58	13	46.59	42	39
	Obs&Gynae	2.35	1.04	1.00	2.44	9	22.00	21	21
	Obs&Gynae	5	0.41		2.05	6	12.30	30	
	Obs&Gynae	2	1.1	1.00	2.20	0	0.00	0	0
	Gen. Surg	2.1	1.56	0.86	3.28	20	65.52	42	36
	Gen. Surg	2.1	1.66	1.26	3.49	26	90.64	55	69
	Gen. Surg	2.96	1.26	0.94	3.73	0		0	0
	Gen. Surg	2	1.5	0.86	3.00	13	39.00	26	22
	Gen. Surg	2	1.5	0.82	3.00	0		0	
	Gen. Surg								
	Urology	8	0.45	0.42	3.60	5	18.00	40	17
	Urology								
	Dental	3.25	0.68	0.48	2.21	7	15.47	23	11
	Dental	3.25	0.68	0.48	2.21	2	4.42	7	3
	ENT	2.5		0.61	2.95	0	0.00	0	0
	ENT	5	0.59	0.61	2.95	4	11.80	20	12
	ENT	5	0.59	0.61	2.95	4	11.80	20	12
	ENT	5	0.59	0.61	2.95	4	11.80	20	12
	ENT								0
	Endoscopy	6	0.45	0.34	2.70	13	35.10	78	27
	Endoscopy	6	0.45	0.31	2.70	17	45.90	102	32
	Endoscopy	6	0.45	0.53	2.70	3	8.10	18	10
	Endoscopy	6	0.45	0.35	2.70	13	35.10	78	27
	Endoscopy	6	0.45	0.35	2.70	4	10.80	24	8
	Endoscopy	6	0.45	0.36	2.70	0		0	0
	Endoscopy	4	0.45	0.36	1.80	5	9.00	20	7
	Endoscopy								0
	Orthopaedic	4.8	0.584	0.51	2.80	5	14.02	24	12
	Orthopaedic								0
	Paeds	5.3	0.64	0.51	3.39	3	10.18	16	8
	Paeds								0
	Ophth	5	0.74	0.50	3.70	9	33.30	45	22
	Ophth								0
Elective						205	620.59	814	488
EMER		0.93	1.3	1.55	1.21	92	111.23	86	133
						502	731.81	899	620

Using the schedule you can model the work that will be undertaken throughout the year

Contact Hours - Prediction July - Oct 14

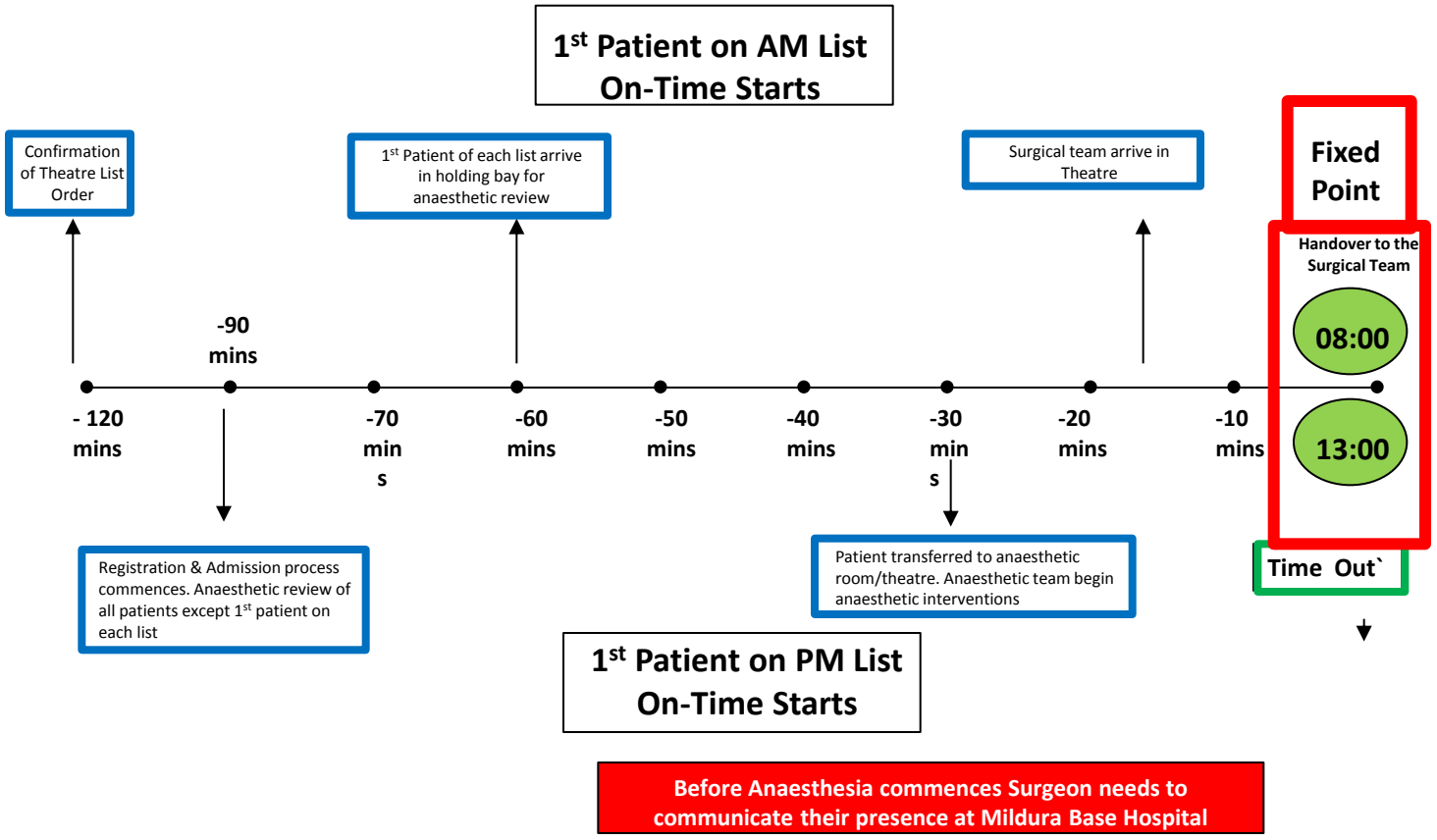
Week	Prediction	Achieved
Jul -14	238.60	240.41
Aug - 14	264.78	261
Sep - 14	238.18	236.99
Oct - 14	281.87	294.2
Nov - 14		
Dec - 14		
Jan - 15		
Feb - 15		
Mar - 15		
Apr - 15		
May - 15		
Jun - 15		



You then can review how you are travelling over the year – this type of approach I have used with quite a number of Health Services

Health Service Theatre Start Time

The time points below are flexible and depending on the type of case that is first for the list – for example a hip replacement will require an earlier arrival time and anaesthesia start time than an endoscopy patient.



Before Anaesthesia commences Surgeon needs to communicate their presence at Mildura Base Hospital

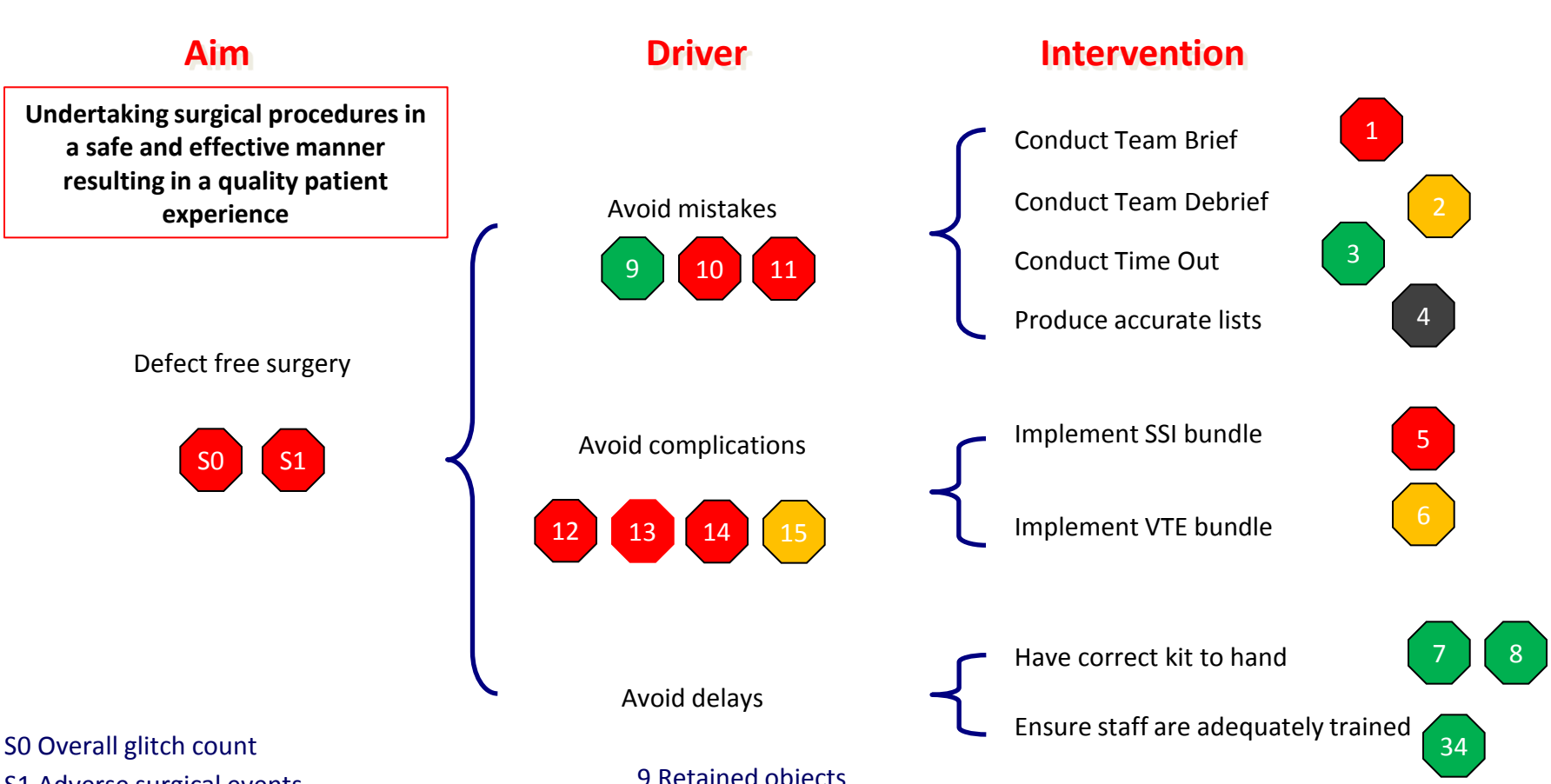
	8:15
	8:30
	8:45

AM Surgery Start Time

Operation Date	Day	Surgeon 1	Anaesthetist	_OR1	_OR2	_OR3
10/1/2014				8:52		
10/2/2014	THURSDAY					8:30
						11:40
					9:25	
					8:35	
10/3/2014	FRIDAY				8:48	
10/6/2014	MONDAY					8:30
10/7/2014	TUESDAY				8:52	
				9:20		
10/8/2014	WEDNESDAY			8:54		
10/10/2014	FRIDAY			11:36		
				9:04		
10/13/2014	MONDAY					8:38
10/16/2014	THURSDAY				8:47	
10/17/2014	FRIDAY					8:32
				8:55		
10/23/2014	THURSDAY			9:00		
					10:19	
					8:50	
10/24/2014	FRIDAY				8:47	
					9:32	
10/27/2014	MONDAY					8:30
				8:57		
10/28/2014	TUESDAY					8:36
						8:48
				8:40		
10/29/2014	WEDNESDAY					9:05
						12:20
10/30/2014	THURSDAY			8:51		
					8:46	
10/31/2014	FRIDAY				8:51	

Example of how a Health Service looks at it start times

Safety & Reliability Driver Diagram

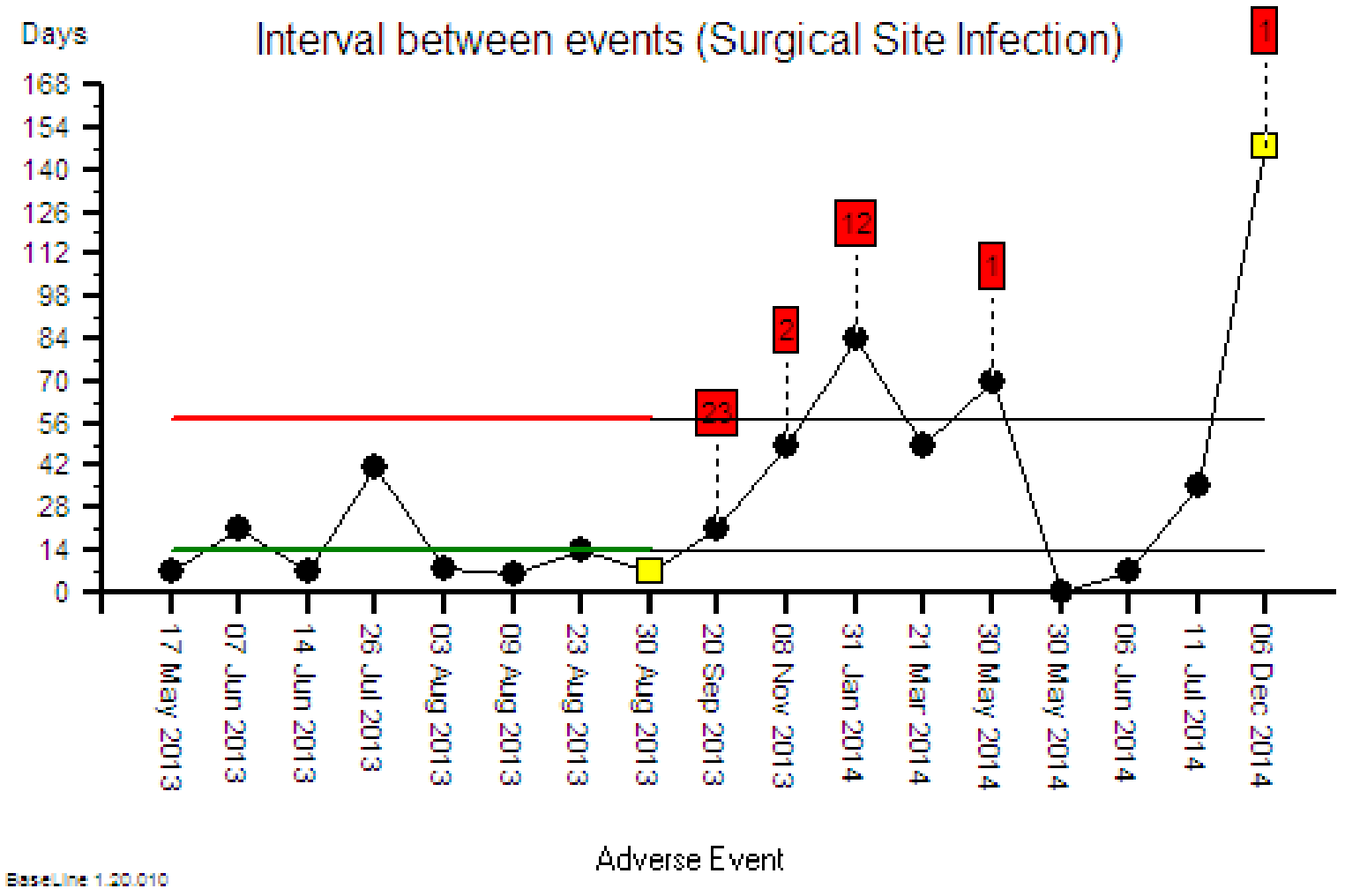


S0 Overall glitch count
S1 Adverse surgical events
1 % lists with Team Brief (or # Team Briefs)
2 % lists with Team Debrief (or # Team Debriefs)
3 % lists with Time Out (or # Time Outs)
4 % lists performed as listed
5 % compliance with SSI bundle
6 % compliance with VTE bundle
7 % correct kit to hand
8 % usable kit

9 Retained objects
10 Wrong site surgery
11 Wrong procedure
12 Readmissions
13 Number of Unplanned returns to theatre
14 Number of SSIs
15 Number of VTEs
34 Compliance with mandatory training & appraisals

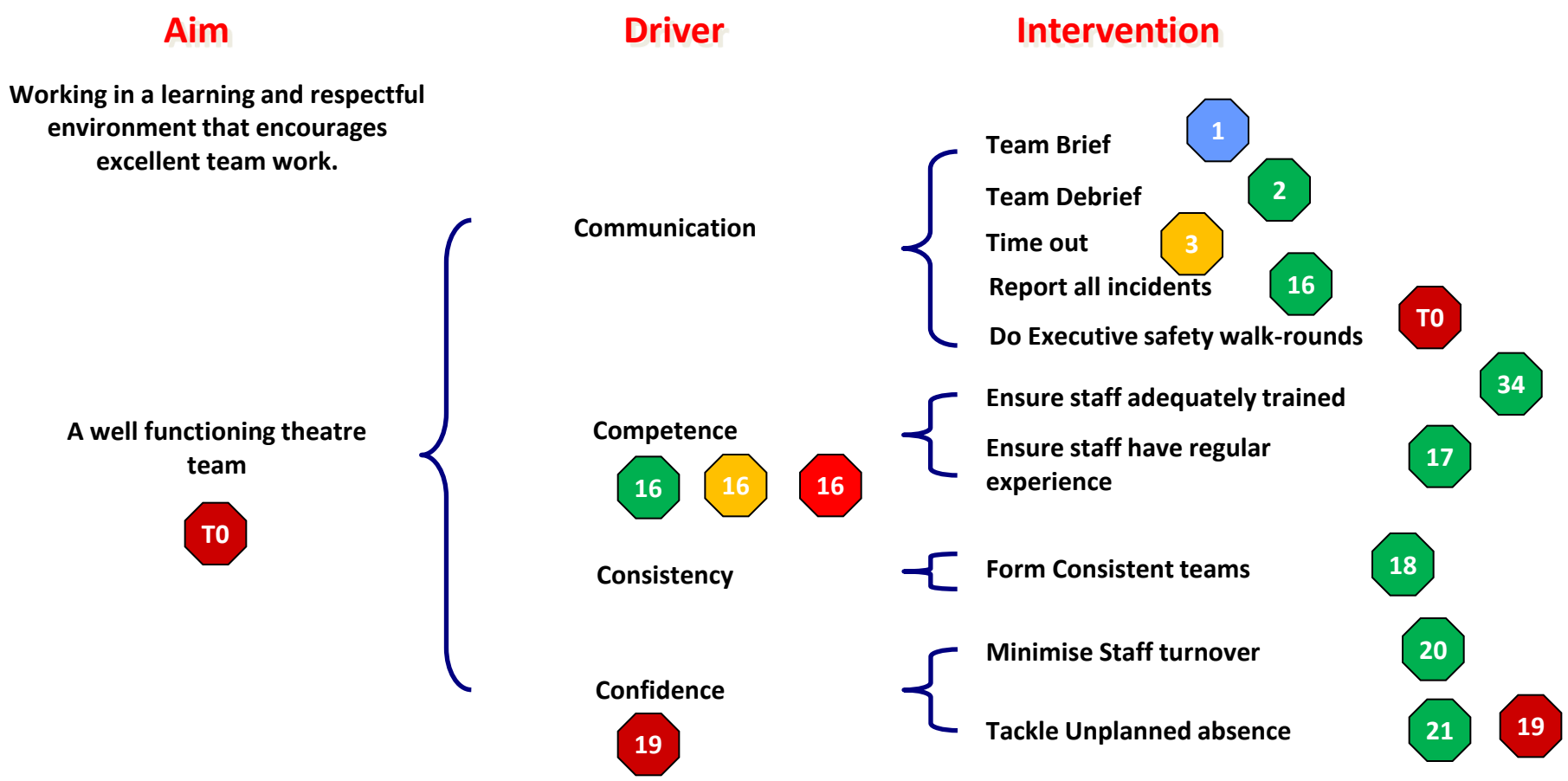
Other Measures

- **Safety & Reliability**
  - Incident reporting
  - Noise
  - Team trained to use specialist equipment



BaseLine 1.20.010

Skilled Teams



T0 Team-working scores using naïve observer report forms
1 % lists with Team Brief (or # Team Briefs)
2 % lists with Team Debrief (or # Team Debriefs)
3 % lists with Time Out (or # Time Outs)
16 Proportion of staff with HF/team skills training (by discipline)
17 Proportion of time was spent working in normal area
18 Number of different staff worked in theatres per list

19 Staff survey
20 Staff turnover
21Sickness absence
34 Compliance with mandatory training & appraisals

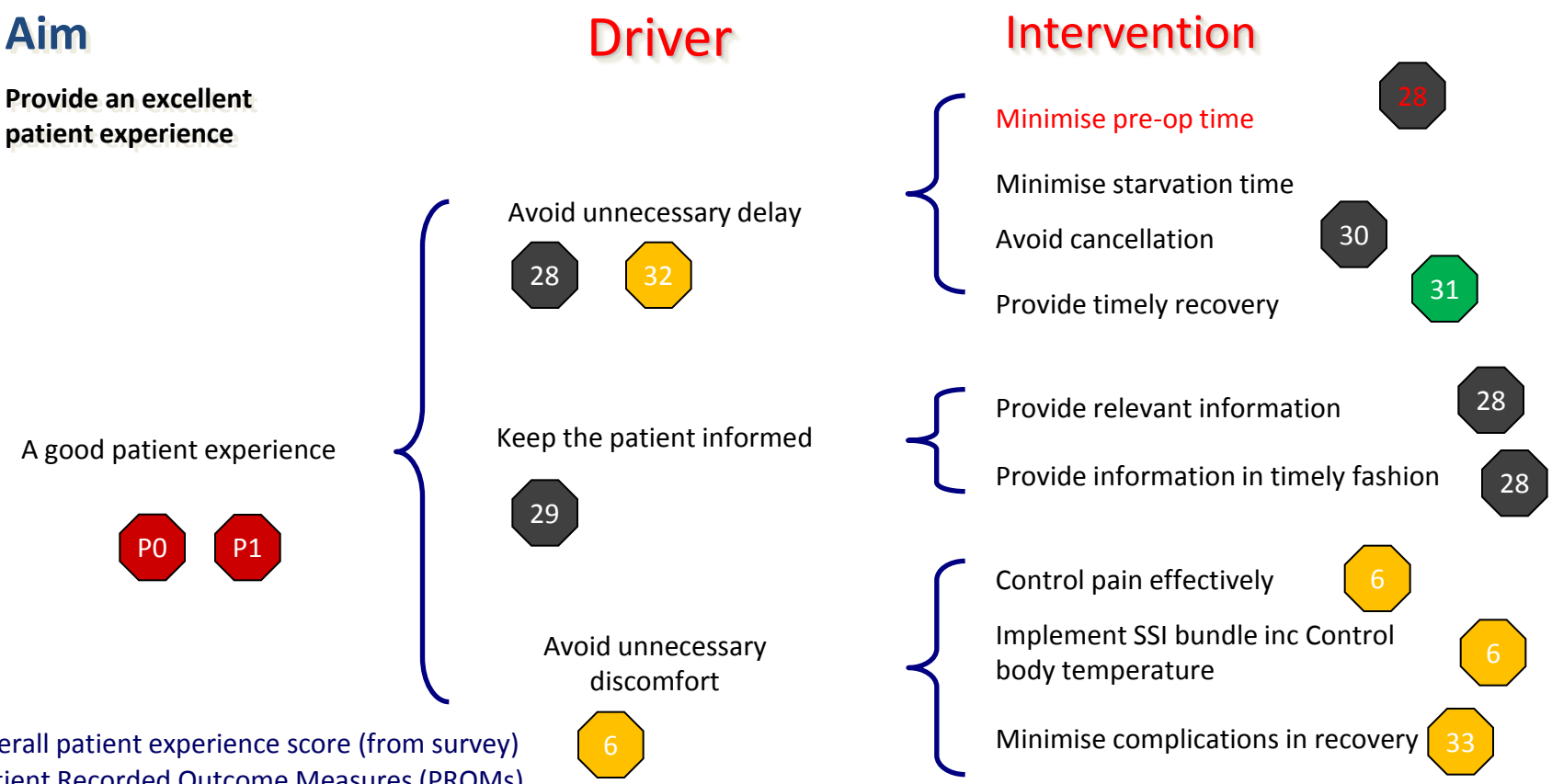
Measure used only in this domain

Measure shared with another domain

Other Measure(s)

- **Team working**
  - Staff training & Development
  - Adequate Training
  - Team Structure (Appropriate skill Mix)
  - Leadership Opportunities

Patient Experience & Outcome Driver Diagram



P0 Overall patient experience score (from survey)
P1 Patient Recorded Outcome Measures (PROMs)
28 Average time from admission to anaesthetic start
29 Average time patient is starved
30 % patients who got their original TCI date
31 Average Recovery delay
32 Average pain score in Recovery
6 % patients with 'normal' body temperature (part of SSI bundle)
33 % patients complication free in Recovery

Other Measure

- **Patient experience**
  - **Post op Visit by Dr in 2nd stage recovery/ward**
  - **Post Op. Anxiety**
  - **Walking to Theatre**

An example of a Driver Diagram - How do I decrease my fuel costs?

NHS Institute for Innovation and Improvement

Overview

A driver diagram is an immensely powerful tool that helps you to translate a high level improvement goal into a logical set of underpinning goals ('drivers') and projects. It captures an entire change programme in a single diagram and also provides a measurement framework for monitoring progress.

The layout of a driver diagram is most easily explained via a simple example.

Imagine your personal goal was to reduce the amount you spend on petrol (i.e. 'decrease fuel costs'). The diagram below shows a typical driver diagram constructed around this goal.

To create a driver diagram:

- Start with a clearly defined, measurable goal. It should describe what you intend to achieve and by when.
- Get a group of people together who understand the different aspects of the improvement topic (i.e. subject matter experts). Ask them to brainstorm potential drivers (i.e. the areas where improvement is needed).
- Cluster the ideas to create an agreed set of 'drivers". Make sure you use language like "improve" or "decrease" and that each driver is clearly defined and measurable.
- Discuss the need for new drivers or whether some of the drivers should be eliminated (if they are wrong or immaterial)
- Identify the links between the drivers to create primary, secondary and tertiary drivers.
- Get the group to identify any balancing goals or balancing measures
- Select improvement projects that you believe will impact upon your drivers.

1. The goal

The driver diagram starts with a clearly defined and measurable goal. This is the focal point for your change efforts.

Decrease fuel costs

2. Primary drivers

The overall goal is linked here to three factors that are believed to have a direct impact on it (i.e. fuel costs will go down if you find cheaper fuel, reduce the number of miles you drive or increase your fuel efficiency).

This first set of underpinning goals are referred to as primary drivers because they 'drive' the achievement of your main goal.

These drivers may act independently or in concert to achieve the overall goal.

Primary drivers

- **Reduce fuel price per gallon** → Shop at a cheaper petrol station
- **Reduce miles driven** → Walk to work instead of driving / share a car
- **Increase efficiency (mpg)**

3. Lower level drivers

The process of breaking down a goal can continue to lower levels to create secondary or tertiary drivers (and even further if required).

Here it is done for one of the primary drivers. Increased efficiency can be achieved through technical improvements (i.e. the car's efficiency) or improvements in the way you drive it.

Secondary drivers

- **Increase car efficiency** → Buy a more fuel efficient car
- **Improve driving pattern**

Tertiary drivers

- **Decrease use of rapid acceleration**
- **Increase use of appropriate gears**
- **Decrease use of rapid braking**

4. Projects or actions

The ultimate aim of a driver diagram is to define the range of projects (i.e. actual change initiatives) that you may want to undertake. These can appear anywhere in the hierarchy of the driver diagram – wherever makes most sense.

Driver diagrams therefore help to break down an overall improvement goal into underpinning goals (i.e. 'drivers') to the point where you can easily define the changes that you need to undertake.

Improve driving habits, avoid unnecessarily accelerating and decelerating

5. Balancing goals or measures

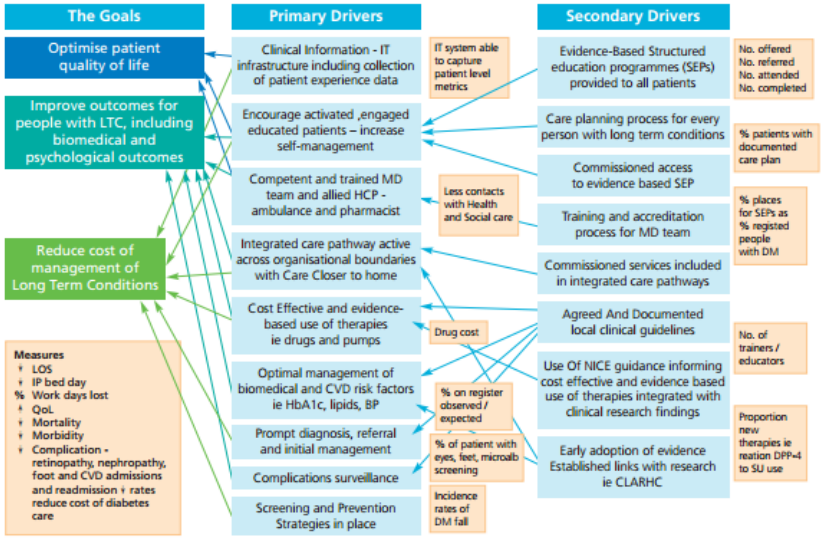
No increase in lateness for work

The goal you have chosen for your driver diagram will not exist in isolation. Often you will have identified related goals (which may have their own driver diagrams).

These goals represent a 'balancing' element to your change efforts. Here, decreasing your fuel costs should not occur at the expense of being routinely late for work (as you wait for the cheap petrol station to open!). This helps to shape the projects that you choose to undertake.

Frequently we choose just to measure performance against these balancing goals (rather than actively do something about them) – so we describe them as 'balancing measures').

Driver Diagram: Diabetes

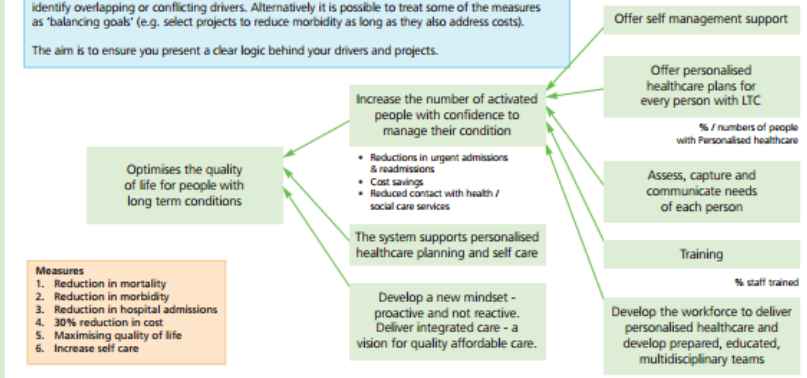


Optimise the quality of life for people with long term conditions

Comments
This driver diagram is still in the early stages of development and will be further refined by the team. Only some of the drivers and measures are shown.

Notice how the team has chosen to select multiple measures for their overall goal. In some situations this can cause confusion over which drivers relate to which overall measures. It can be clearer to do separate driver diagrams for each measurable goal. For example, it would be possible to do separate driver diagrams for reducing morbidity and reducing costs associated with LTCs. This can help to identify overlapping or conflicting drivers. Alternatively it is possible to treat some of the measures as 'balancing goals' (e.g. select projects to reduce morbidity as long as they also address costs).

The aim is to ensure you present a clear logic behind your drivers and projects.



Driver Diagram Aide Memoire

NHS Institute for Innovation and Improvement

Hints and tips

Driver diagrams are a 'live' tool. They will change over time as you make changes to your system.

If you can make your goal, drivers and project outcomes measurable you have created a measurement framework for determining progress. This will help you to monitor the change process without needing to purely relying on changes in performance against your overall goal. It will also help you to judge where more progress against a particular driver needs to occur.

If some drivers (or your overall goal) are heavily influenced by demographic factors (e.g. changes in population sizes), try to build these into your measures (e.g. by using rates or setting a reduced target figure) or add them to your measurement framework so that their impact can be monitored.

Creating a driver diagram with a team ensures that everyone understands your goal and how they can contribute towards achieving it. Get the right people there so that you have knowledge in the room from people who see all parts of the care process.

Always keep in mind that a driver diagram is an improvement tool. Stop identifying additional layers of drivers when is ceases to be helpful (i.e. when your improvement projects start to become apparent). Also be confident enough to prioritise your drivers by selecting quick wins or dismissing drivers that in reality have little impact. Don't automatically ignore drivers that seem outside of your control. Sometimes with some lateral thinking (or partnership working) you can influence them.

Driver diagrams will vary from place to place - there is no definitive 'right' answer as your local situation may be very different from other parts of the country. Research evidence and local understanding will both shape your driver diagram.

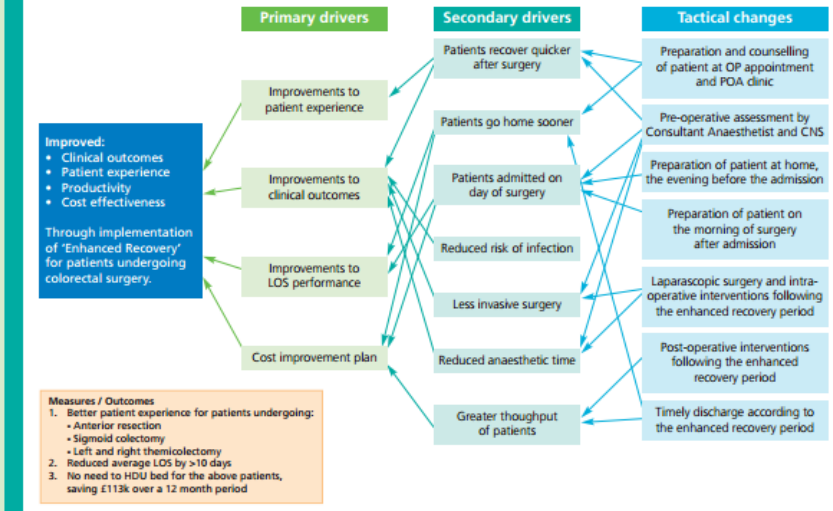
What do people think of driver diagrams?

"It took us a few times to get it refined, we changed it six times; it was an intuitive process. But it really is the backbone of our strategy. We're now hanging project measures on to it."

"Driver diagrams are something that can be applied to any environment, any situation... It gets you into a structure of thinking where, even with a very complex and complicated programme, you can put that into context to another person."

"It enables us to move from a concept or an idea into starting to execute a programme and delivery very quickly. That has been a major difference to the way we work..."

Driver Diagram - Enhanced Recovery for Colorectal Surgery



Tips and tricks

- **Driver diagrams are a 'live' tool. They will change over time as you make changes to your system.**
- **If you can make your drivers measurable you have created a measurement framework for determining progress towards your overall goal**
- **Creating a driver diagram with a team ensures that everyone understands your goal and how they can contribute towards achieving it**
- **Driver diagrams will vary from place to place - there is no definitive 'right' answer as your local situation may be very different from other parts of the country**

What do people think of driver diagrams?

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Perioperative & Interventional Services

Dashboard Development

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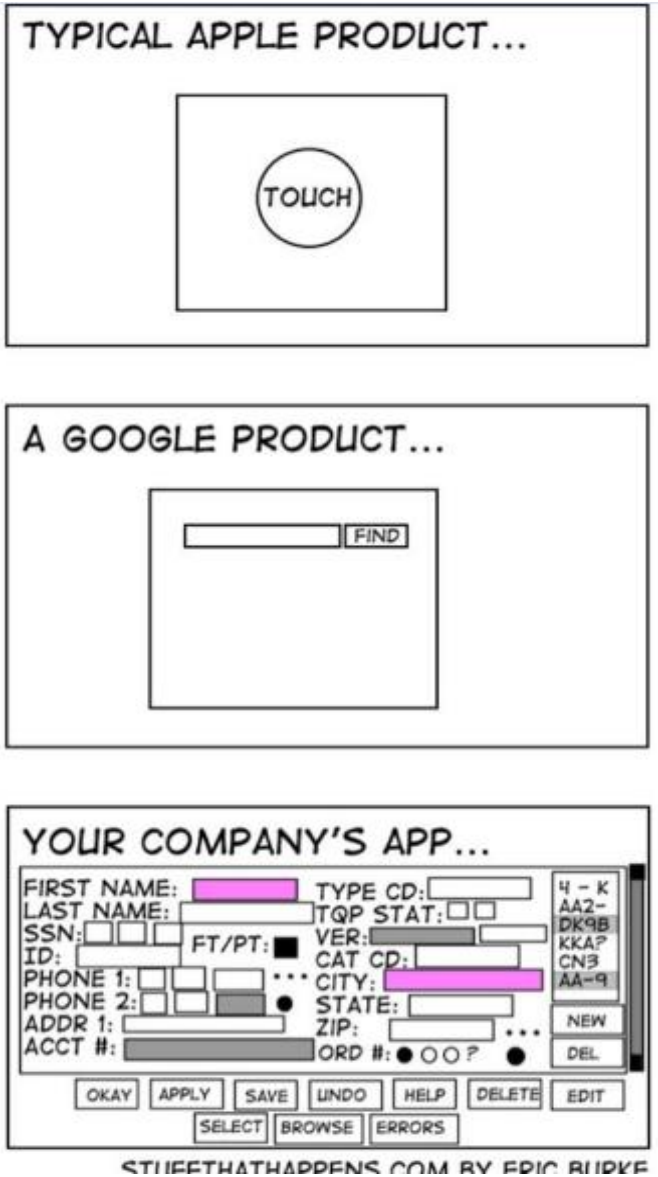
Perhaps the Reason is……



Dashboard

In management information systems, a **dashboard** is "an easy to read, often single page, real-time user interface, showing a graphical presentation of the current status (snapshot) and historical trends of an organization's key performance indicators to enable instantaneous and informed decisions to be made at a glance."[1]

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- **Prior to 2013 there was limited access to useful reports for Perioperative Services and in general these were initiated by request and took time**.

- **Late in 2012 Ballarat Health Service made a commitment to develop a Series of Dashboards for Clinical Streams**

- **This presentation describes where the Dashboard(s) for Perioperative Services is today**

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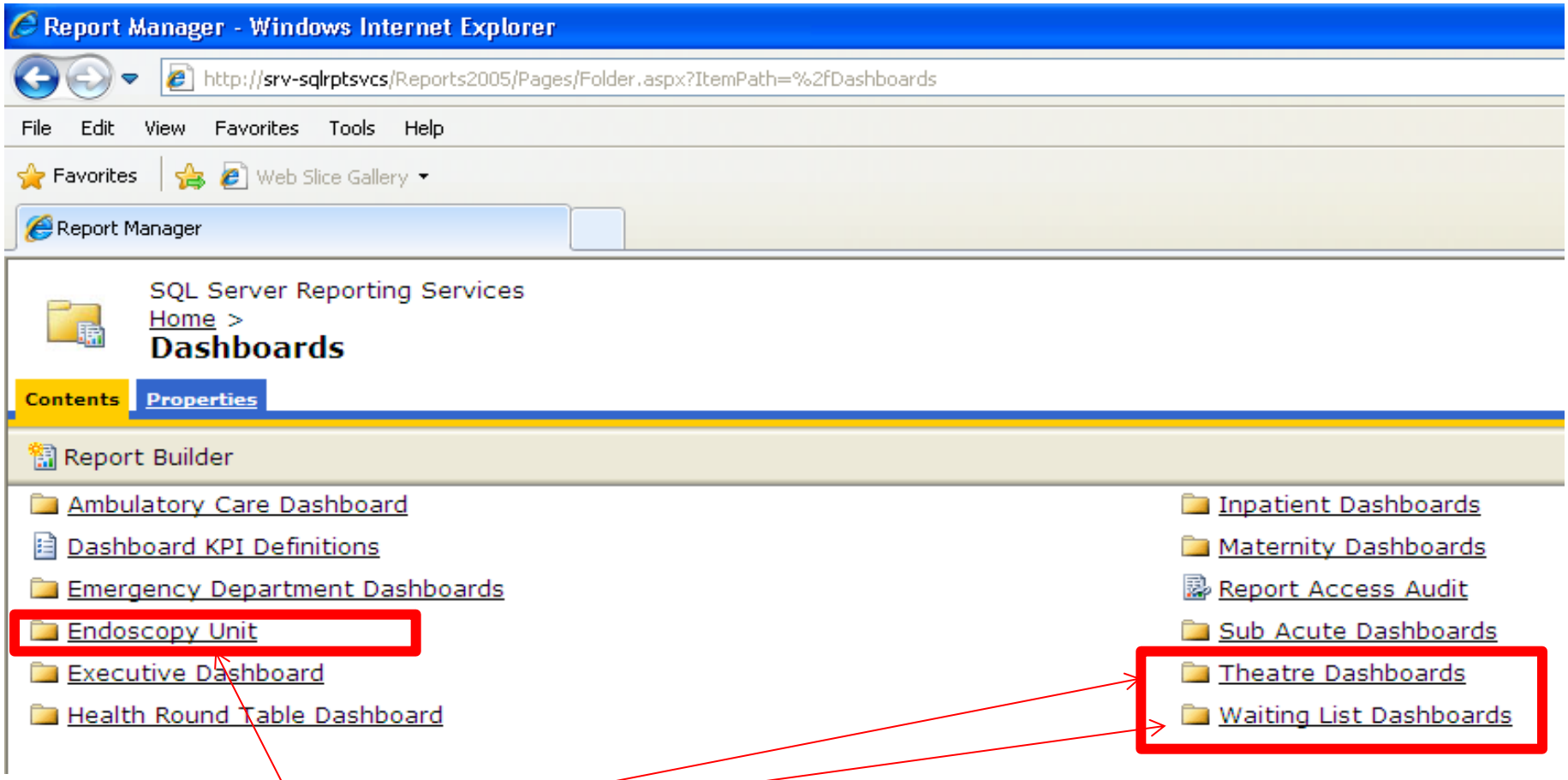

Dashboards

Ballarat Health Services
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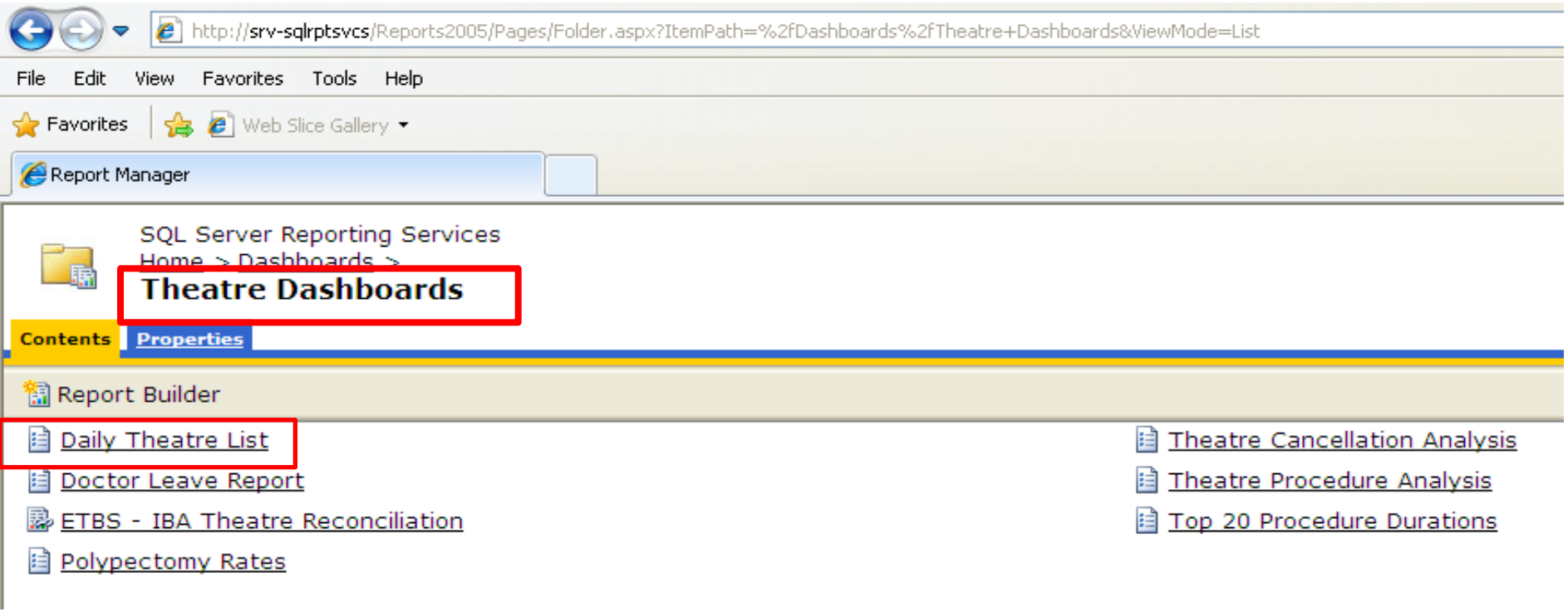

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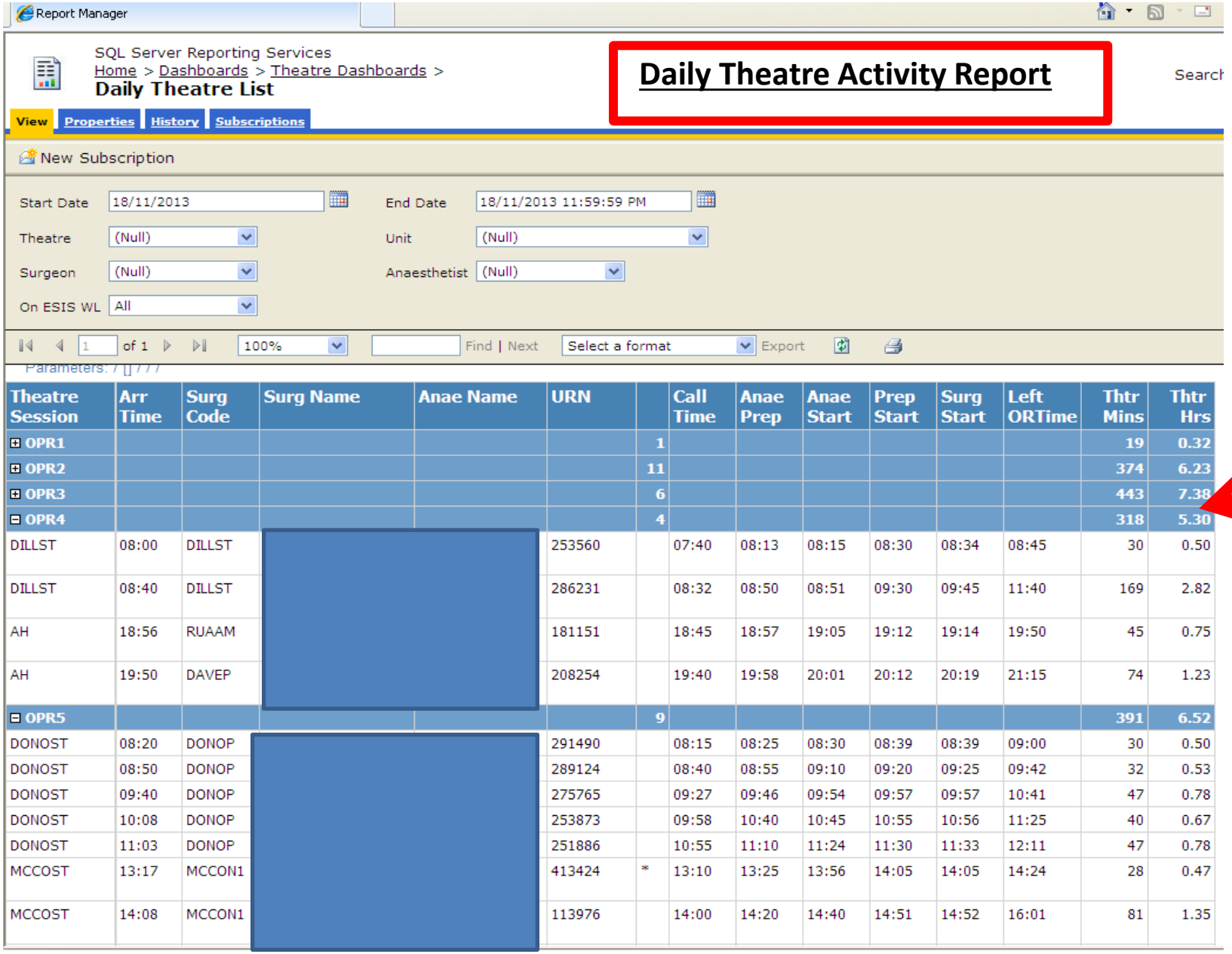

Theatre Session	Arr Time	Surg Code	Surg Name	Anae Name	URN		Call Time	Anae Prep	Anae Start	Prep Start	Surg Start	Left ORTime	Thtr Mins	Thtr Hrs
⊞ OPR1						1							19	0.32
⊞ OPR2						11							374	6.23
⊞ OPR3						6							443	7.38
⊟ OPR4						4							318	5.30
DILLST	08:00	DILLST			253560		07:40	08:13	08:15	08:30	08:34	08:45	30	0.50
DILLST	08:40	DILLST			286231		08:32	08:50	08:51	09:30	09:45	11:40	169	2.82
AH	18:56	RUAAM			181151		18:45	18:57	19:05	19:12	19:14	19:50	45	0.75
AH	19:50	DAVEP			208254		19:40	19:58	20:01	20:12	20:19	21:15	74	1.23
⊟ OPR5						9							391	6.52
DONOST	08:20	DONOP			291490		08:15	08:25	08:30	08:39	08:39	09:00	30	0.50
DONOST	08:50	DONOP			289124		08:40	08:55	09:10	09:20	09:25	09:42	32	0.53
DONOST	09:40	DONOP			275765		09:27	09:46	09:54	09:57	09:57	10:41	47	0.78
DONOST	10:08	DONOP			253873		09:58	10:40	10:45	10:55	10:56	11:25	40	0.67
DONOST	11:03	DONOP			251886		10:55	11:10	11:24	11:30	11:33	12:11	47	0.78
MCCOST	13:17	MCCON1			413424	*	13:10	13:25	13:56	14:05	14:05	14:24	28	0.47
MCCOST	14:08	MCCON1			113976		14:00	14:20	14:40	14:51	14:52	16:01	81	1.35

Contact Hours per Day

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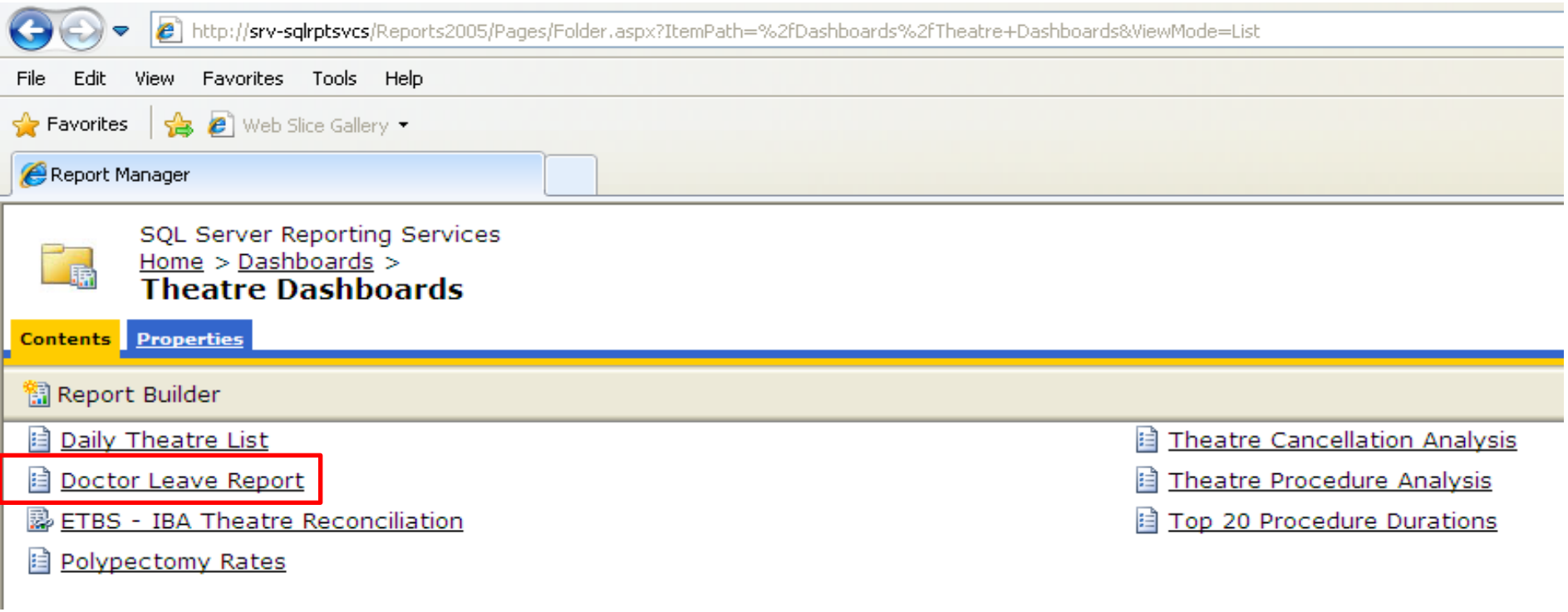

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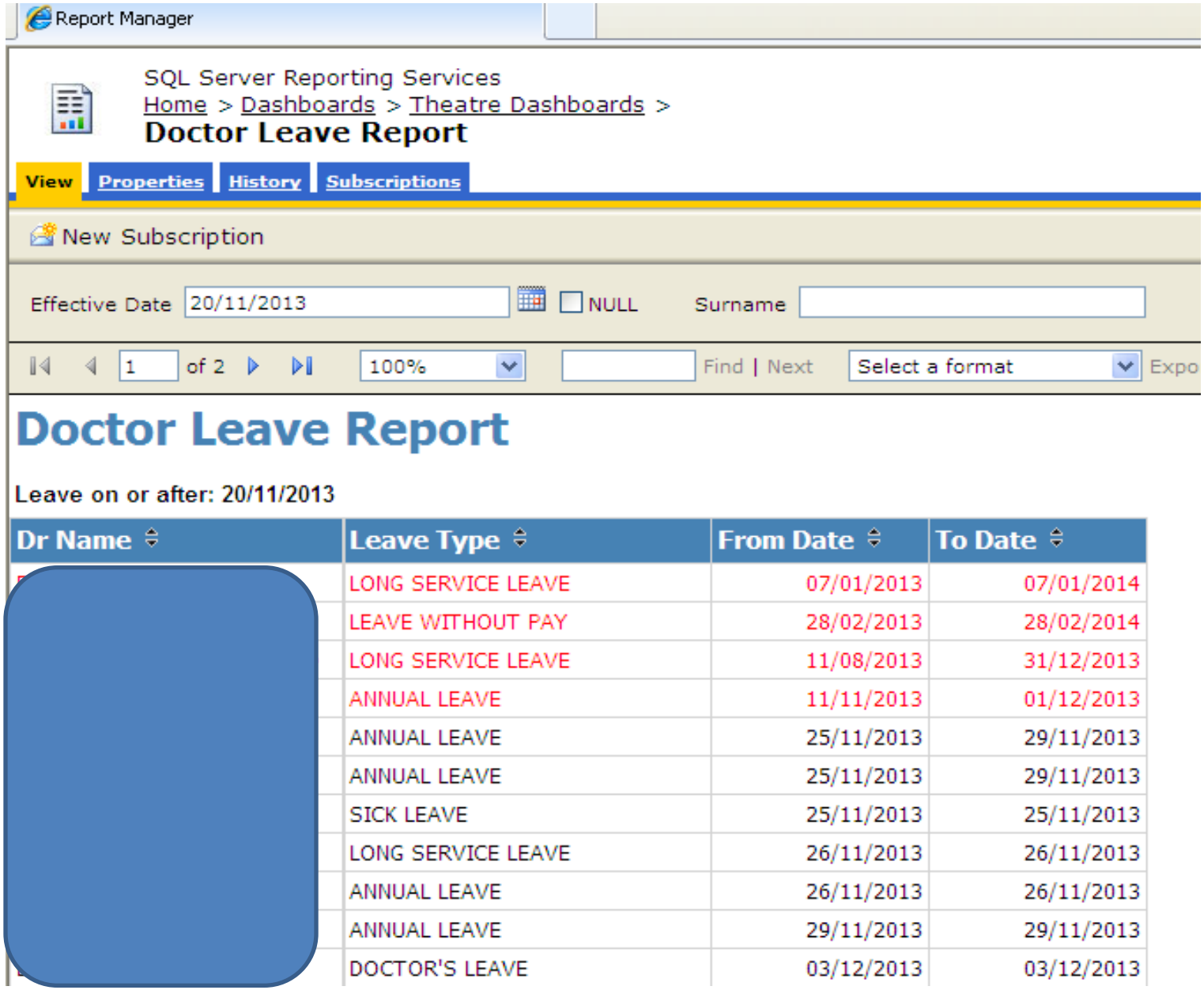

Doctor Leave Report

Leave on or after: 20/11/2013

Dr Name	Leave Type	From Date	To Date
[redacted]	LONG SERVICE LEAVE	07/01/2013	07/01/2014
	LEAVE WITHOUT PAY	28/02/2013	28/02/2014
	LONG SERVICE LEAVE	11/08/2013	31/12/2013
	ANNUAL LEAVE	11/11/2013	01/12/2013
	ANNUAL LEAVE	25/11/2013	29/11/2013
	ANNUAL LEAVE	25/11/2013	29/11/2013
	SICK LEAVE	25/11/2013	25/11/2013
	LONG SERVICE LEAVE	26/11/2013	26/11/2013
	ANNUAL LEAVE	26/11/2013	26/11/2013
	ANNUAL LEAVE	29/11/2013	29/11/2013
	DOCTOR'S LEAVE	03/12/2013	03/12/2013

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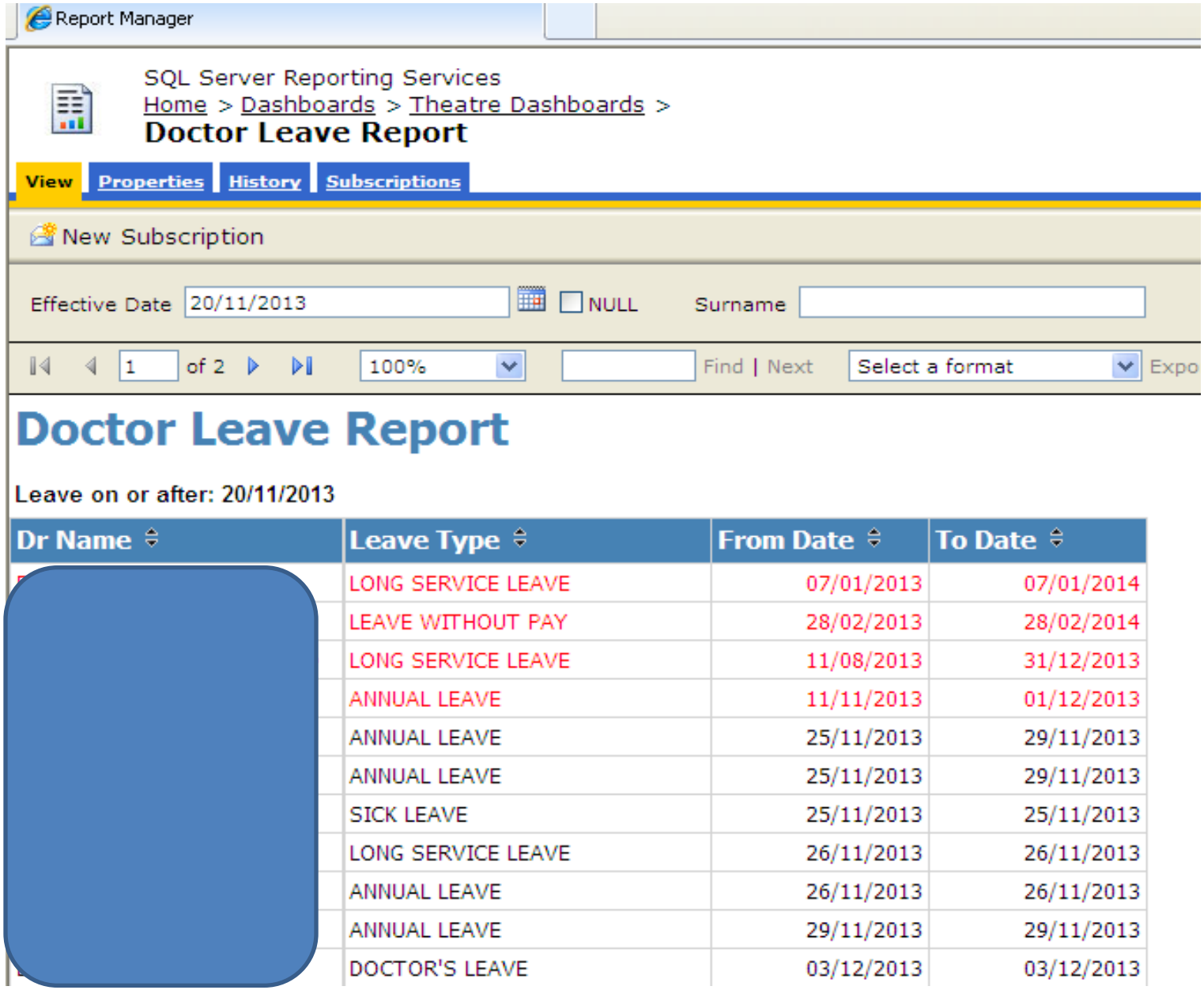

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	ANNUAL LEAVE	25/11/2013	29/11/2013
	SICK LEAVE	25/11/2013	25/11/2013
	LONG SERVICE LEAVE	26/11/2013	26/11/2013
	ANNUAL LEAVE	26/11/2013	26/11/2013
	ANNUAL LEAVE	29/11/2013	29/11/2013
	DOCTOR'S LEAVE	03/12/2013	03/12/2013

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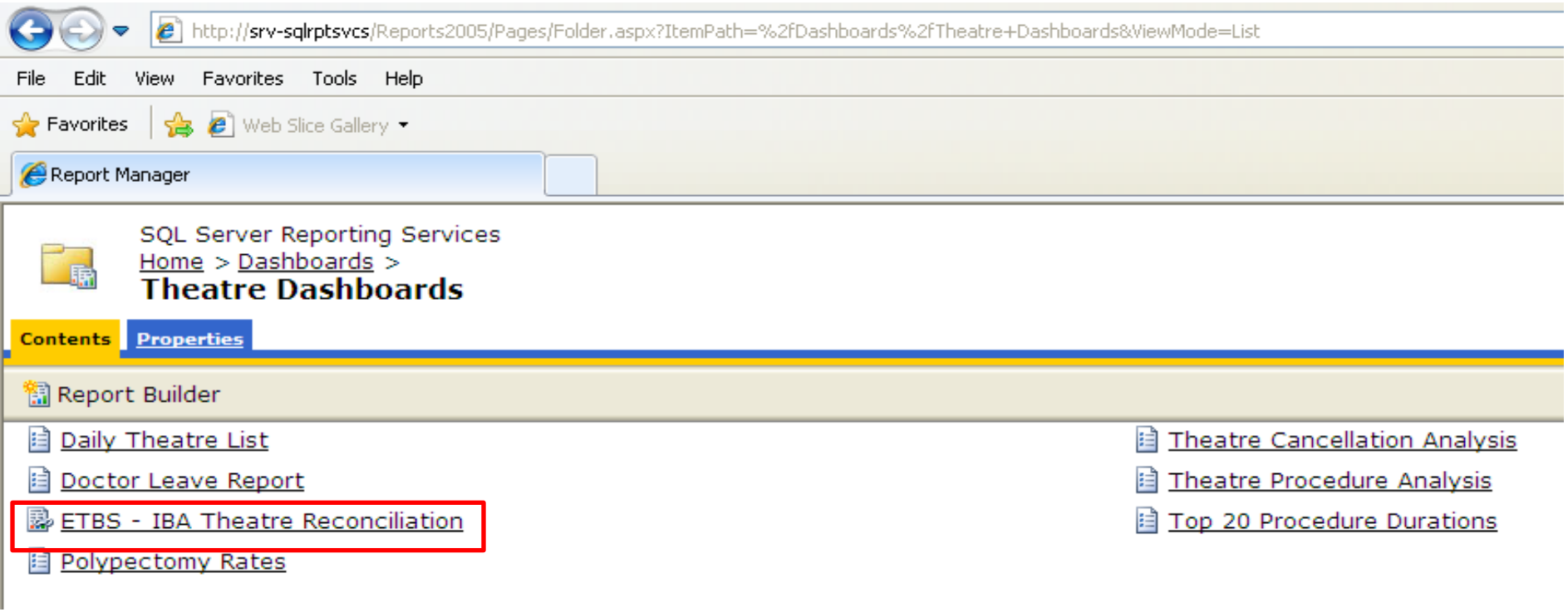

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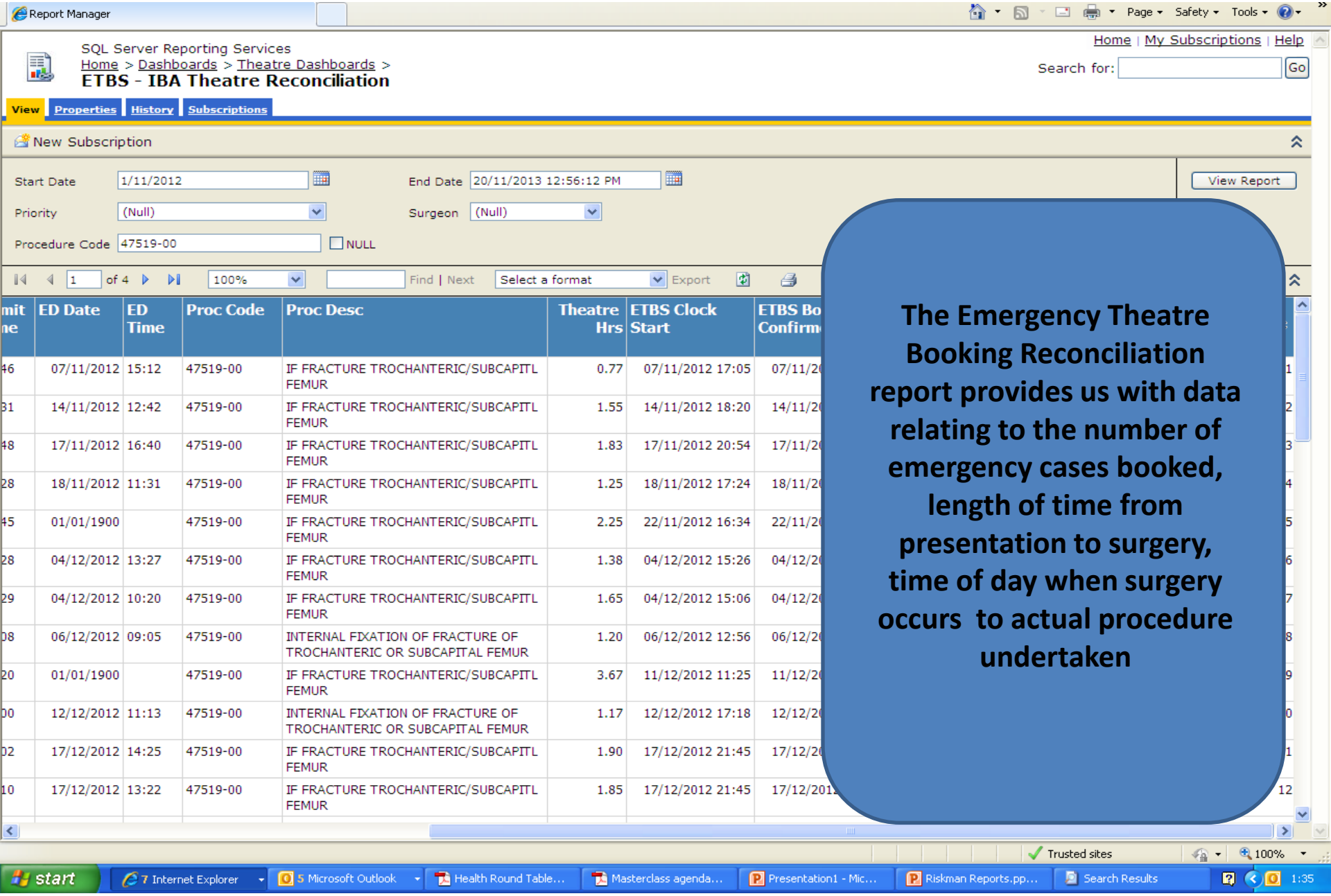
Report Manager
Page
Safety
Tools
SQL Server Reporting Services
Home > Dashboards > Theatre Dashboards >
ETBS - IBA Theatre Reconciliation
Home | My Subscriptions | Help
Search for:
Go
View
Properties
History
Subscriptions
New Subscription
Start Date
1/11/2012
End Date
20/11/2013 12:56:12 PM
View Report
Priority
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Surgeon
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Procedure Code
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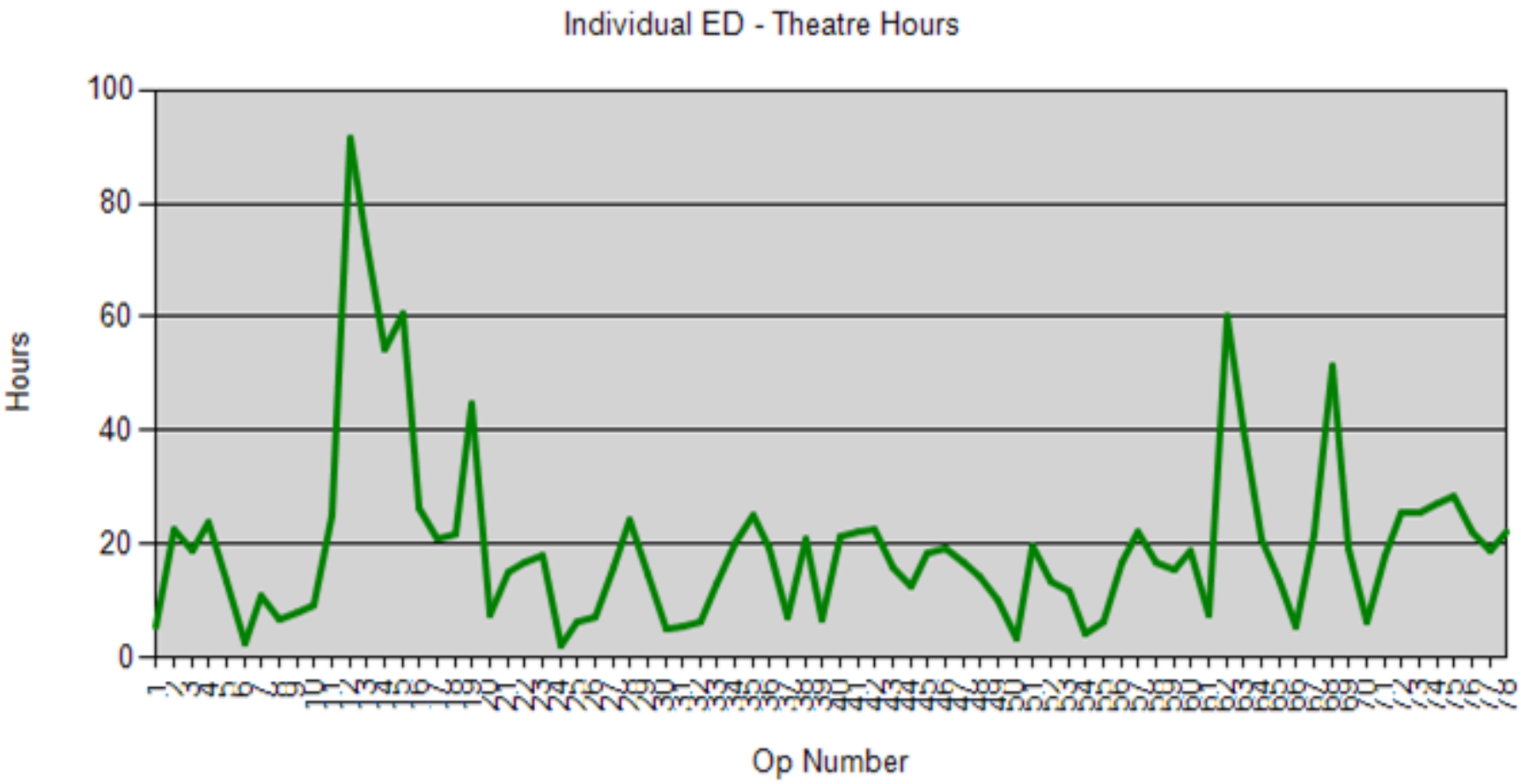
ETBS Bo Confirm
46 07/11/2012 15:12 47519-00 IF FRACTURE TROCHANTERIC/SUBCAPITL FEMUR 0.77 07/11/2012 17:05 07/11/2
31 14/11/2012 12:42 47519-00 IF FRACTURE TROCHANTERIC/SUBCAPITL FEMUR 1.55 14/11/2012 18:20 14/11/2
48 17/11/2012 16:40 47519-00 IF FRACTURE TROCHANTERIC/SUBCAPITL FEMUR 1.83 17/11/2012 20:54 17/11/2
28 18/11/2012 11:31 47519-00 IF FRACTURE TROCHANTERIC/SUBCAPITL FEMUR 1.25 18/11/2012 17:24 18/11/2
45 01/01/1900 47519-00 IF FRACTURE TROCHANTERIC/SUBCAPITL FEMUR 2.25 22/11/2012 16:34 22/11/2
28 04/12/2012 13:27 47519-00 IF FRACTURE TROCHANTERIC/SUBCAPITL FEMUR 1.38 04/12/2012 15:26 04/12/2
29 04/12/2012 10:20 47519-00 IF FRACTURE TROCHANTERIC/SUBCAPITL FEMUR 1.65 04/12/2012 15:06 04/12/2
08 06/12/2012 09:05 47519-00 INTERNAL FIXATION OF FRACTURE OF TROCHANTERIC OR SUBCAPITAL FEMUR 1.20 06/12/2012 12:56 06/12/2
20 01/01/1900 47519-00 IF FRACTURE TROCHANTERIC/SUBCAPITL FEMUR 3.67 11/12/2012 11:25 11/12/2
00 12/12/2012 11:13 47519-00 INTERNAL FIXATION OF FRACTURE OF TROCHANTERIC OR SUBCAPITAL FEMUR 1.17 12/12/2012 17:18 12/12/2
02 17/12/2012 14:25 47519-00 IF FRACTURE TROCHANTERIC/SUBCAPITL FEMUR 1.90 17/12/2012 21:45 17/12/2
10 17/12/2012 13:22 47519-00 IF FRACTURE TROCHANTERIC/SUBCAPITL FEMUR 1.85 17/12/2012 21:45 17/12/201
The Emergency Theatre Booking Reconciliation report provides us with data relating to the number of emergency cases booked, length of time from presentation to surgery, time of day when surgery occurs to actual procedure undertaken
Trusted sites
100%
start
Internet Explorer
Microsoft Outlook
Health Round Table...
Masterclass agenda...
Presentation1 - Mic...
Riskman Reports.pp...
Search Results
1:35

Emergency Theatre Booking – Hip Fracture Patients – Time to Surgery from ED Presentation – chronologically Jan 2013 – October 2013



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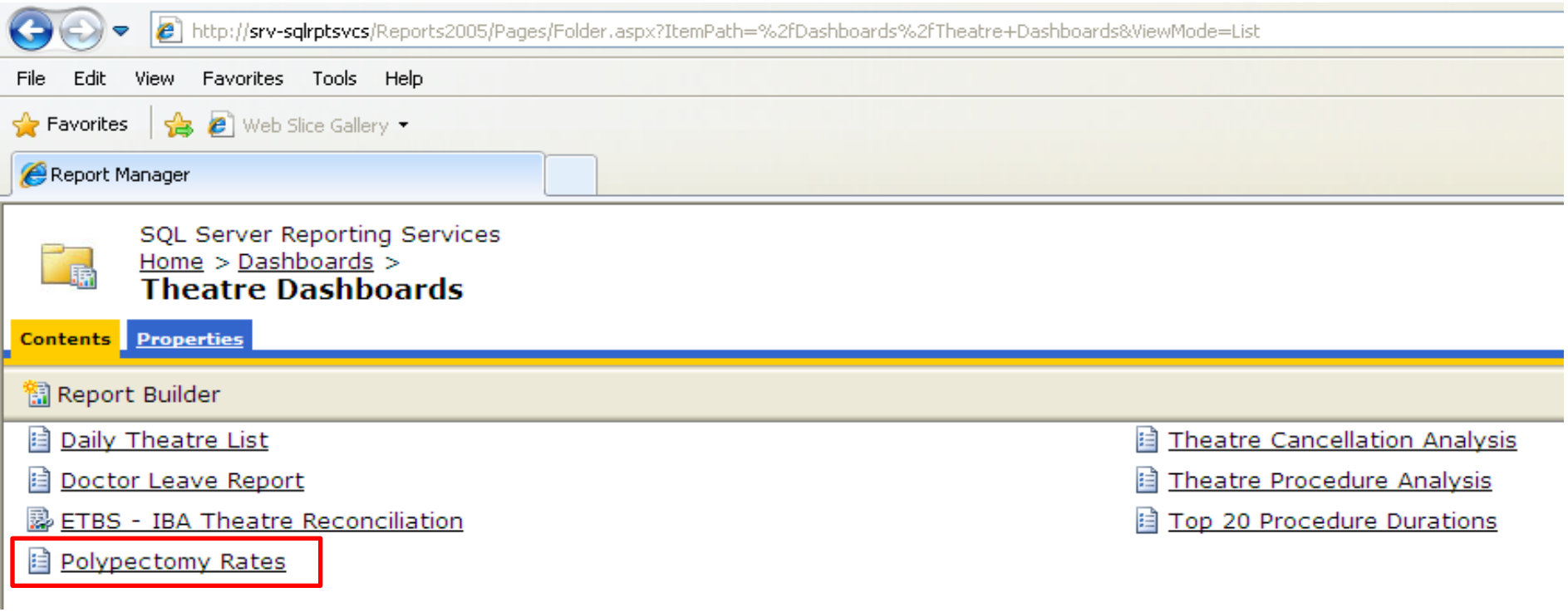

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Calculation of Polypectomy Rate

Principal Procedure	Principal Procedure Name
32084-00	FIBREOPTIC COLONOSCOPY T HEPATIC FLEXURE
32084-01	FIBREOPTIC COLONOSCOPY HEPTC FLEXURE BX
32090-00	FIBREOPTIC COLONOSCOPY TO CAECUM
32090-01	FIBREOPTIC COLONOSCOPY TO CAECUM W BX
32093-00	FIBREOPTIC COLONOSCOPY TO CAECUM W PP

Polypectomy Rate

Rate to be calculated from Principal Procedure

$$\frac{\text{32093-00}}{\text{32084-00+32084-01+32090-00+32090-01+32093-00}}$$

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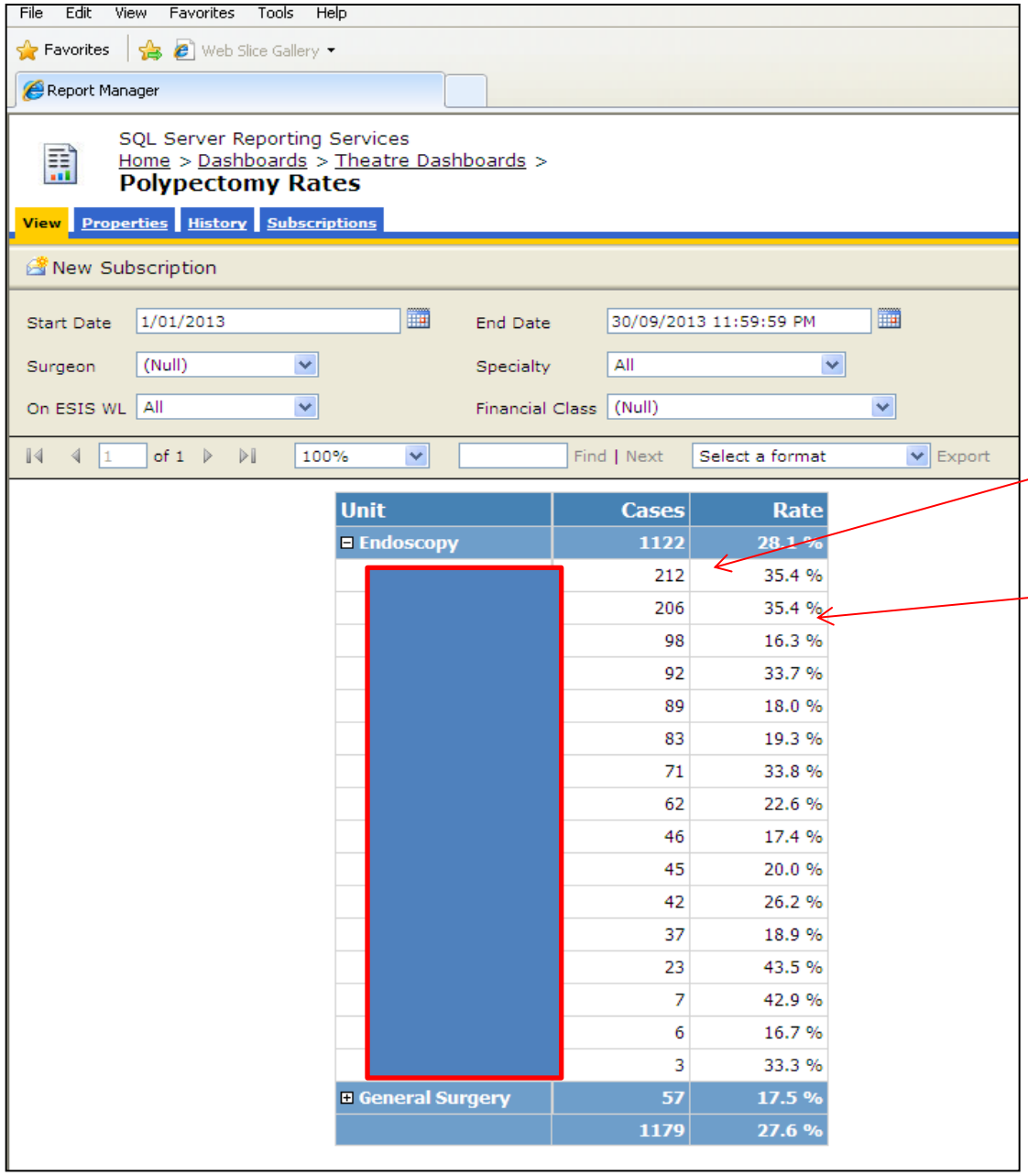

Unit	Cases	Rate
Endoscopy	1122	28.1 %
[redacted]	212	35.4 %
	206	35.4 %
	98	16.3 %
	92	33.7 %
	89	18.0 %
	83	19.3 %
	71	33.8 %
	62	22.6 %
	46	17.4 %
	45	20.0 %
	42	26.2 %
	37	18.9 %
	23	43.5 %
	7	42.9 %
	6	16.7 %
	3	33.3 %
General Surgery	57	17.5 %
	1179	27.6 %

Number of Colonoscopies undertaken by proceduralists.
Polypectomy rate – data fed back to Endoscopy Unit and individual surgeons for comment

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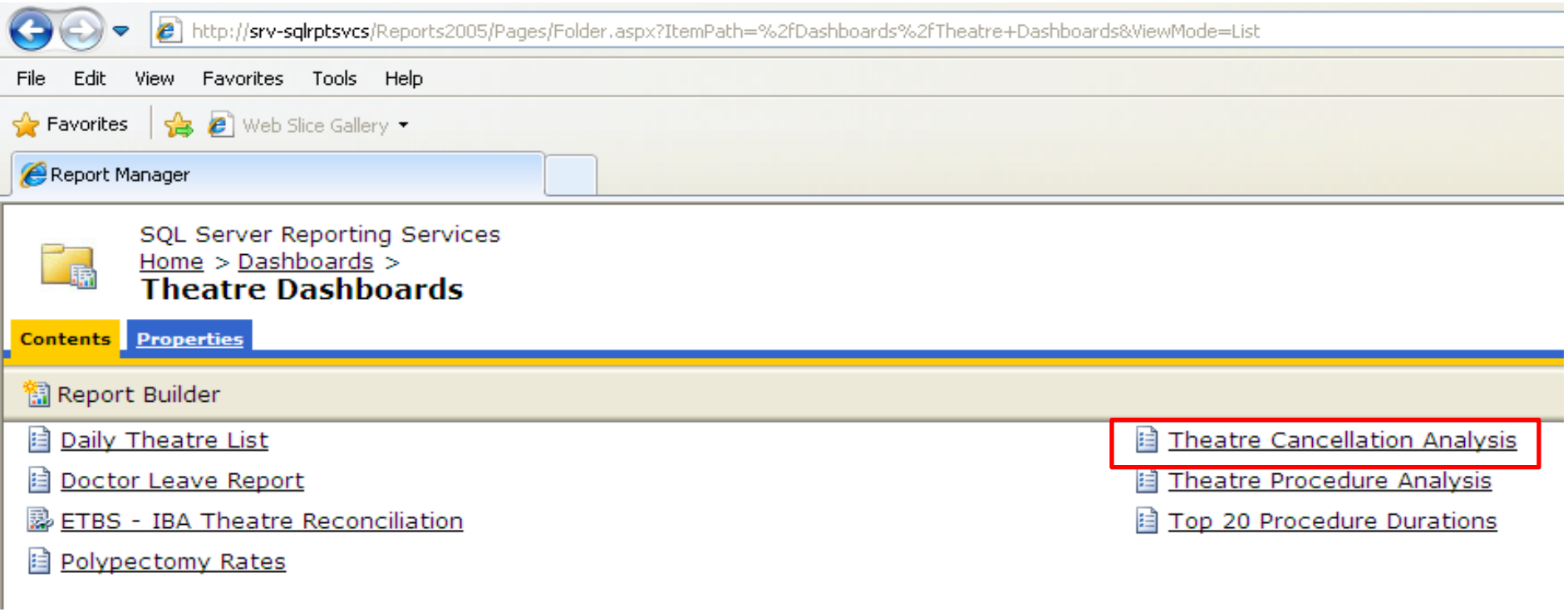

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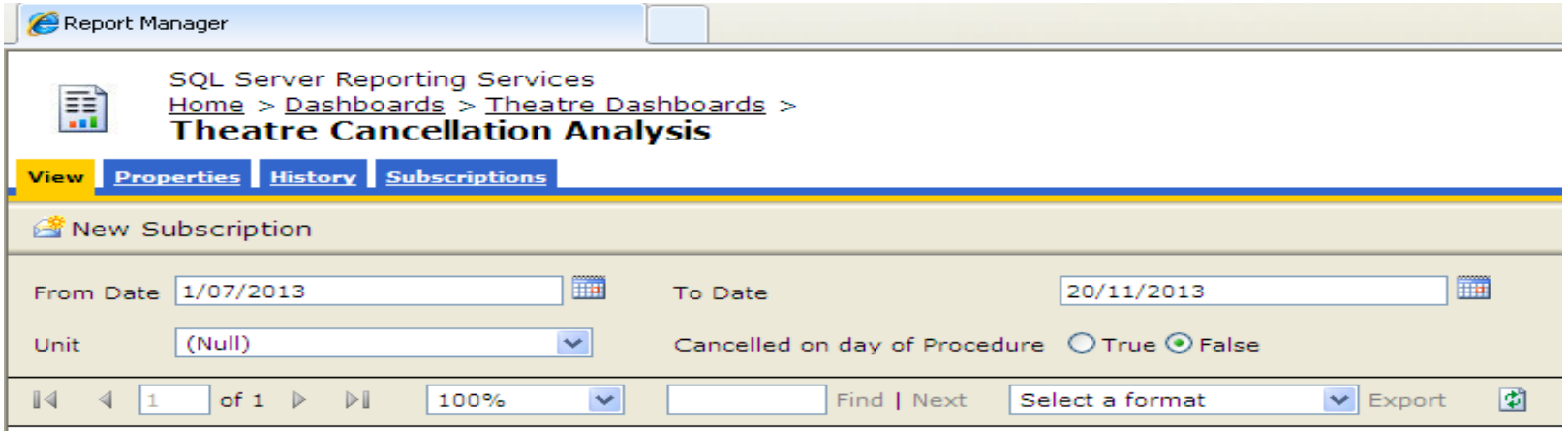

Theatre Cancellation Analysis

01/07/2013 To 20/11/2013

	Jul 2013	Aug 2013	Sep 2013	Oct 2013	Nov 2013	Total
Bed Unavail - CCU	0	0	0	1	1	**2**
Bed Unavail - Ward	36	13	0	1	0	**50**
Clerical/Book Error	7	7	4	5	4	**27**
Elective Priority	30	12	17	17	8	**84**
Emergency Priority	14	9	19	14	9	**65**
Equipment Unavailabl	3	3	2	0	1	**9**
Hosp Staff Unavail	0	0	1	0	0	**1**
Pt Unprepared -Sefl	2	5	5	6	0	**18**
PT CHANGED PUB-PRIV	1	1	1	0	1	**4**
Pt DNA	3	3	0	4	2	**12**
Pt Postponed	61	59	77	77	48	**322**
Pt Unfit - Doctor	35	18	16	24	14	**107**
Pt Unprepared - Hosp	1	3	3	0	1	**8**
SURG N/REQ RESOLVED	15	13	22	20	14	**84**
Surg Unit Initiated	7	5	3	0	3	**18**
Surgeon Unavailable	17	14	20	6	16	**73**
Theatre Overbooked	3	5	5	7	4	**24**
Theatre Overrun	2	2	11	4	3	**22**
Total	**237**	**172**	**206**	**186**	**129**	**930**

All Cancellations

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New Subscription

From Date 1/07/2013 To Date 20/11/2013

Unit (Null) Cancelled on day of Procedure True False

1 of 1 100% Find | Next Select a format Export

Theatre Cancellation Analysis 01/07/2013 To 20/11/2013

	Jul 2013	Aug 2013	Sep 2013	Oct 2013	Nov 2013	Total
Bed Unavail - CCU	0	0	0	1	1	**2**
Bed Unavail - Ward	13	5	0	0	0	**18**
Clerical/Book Error	3	2	1	1	2	**9**
Emergency Priority	6	6	7	5	5	**29**
Equipment Unavailabl	1	3	0	0	0	**4**
Pt Unprepared -Sefl	0	2	2	4	0	**8**
Pt DNA	2	3	0	4	2	**11**
Pt Postponed	4	3	5	5	2	**19**
Pt Unfit - Doctor	11	4	12	10	5	**42**
Pt Unprepared - Hosp	1	0	1	0	0	**2**
SURG N/REQ RESOLVED	2	2	2	6	0	**12**
Surg Unit Initiated	2	2	2	0	0	**6**
Surgeon Unavailable	13	2	5	1	0	**21**
Theatre Overbooked	0	2	1	2	2	**7**
Theatre Overrun	1	1	9	2	1	**14**
Total	**59**	**37**	**47**	**41**	**20**	**204**

All On the Day Cancellations

20/11/2013 10:20

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Report Manager

SQL Server Reporting Services
Home > Dashboards > Theatre Dashboards >
Theatre Cancellation Analysis

View | Properties | History | Subscriptions

New Subscription

From Date 1/07/2013 To Date 20/11/2013

Unit ORTHOPAEDIC (A) Cancelled on day of Procedure True False

1 of 1 100% Find | Next Select a format Export

Theatre Cancellation Analysis 01/07/2013 To 20/11/2013

	Jul 2013	Aug 2013	Sep 2013	Oct 2013	Nov 2013	Total
Bed Unavail - Ward	3	0	0	0	0	3
Emergency Priority	2	4	1	0	3	10
Pt DNA	0	1	0	0	0	1
Pt Postponed	1	0	1	1	0	3
Pt Unfit - Doctor	1	2	3	3	0	9
SURG N/REQ RESOLVED	0	1	0	0	0	1
Surgeon Unavailable	0	0	3	0	0	3
Theatre Overbooked	0	0	0	1	0	1
Theatre Overrun	0	1	2	0	0	3
Total	7	9	10	5	3	34

Orthopaedic Unit On the Day Cancellations

20/11/2013 10:22

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Report Manager

SQL Server Reporting Services

Home > Dashboards > Theatre Dashboards >

Theatre Cancellation Details

View | Properties | History | Subscriptions

New Subscription

1 of 1 | 100% | Find | Next | Select a format | Export

Theatre Cancellation Details

Pt Unfit - Doctor

Cancel Date	Same Day	UR No	Procedure	Book Date	WL Pri	WL Days	Cons
20131004	Yes	441818	TOTAL HIP REPLACEMENT	20130809			KOLAST
20131002	Yes	141667	ARTHROSCOPY OF KNEE	20130902	2	30	ENGLS
20131002	Yes	226498	TOTAL KNEE REPLACEMENT	20130920			DILLST

20/11/2013 10:23

Orthopaedic Patient – Pt Unfit - Doctor Cancellations

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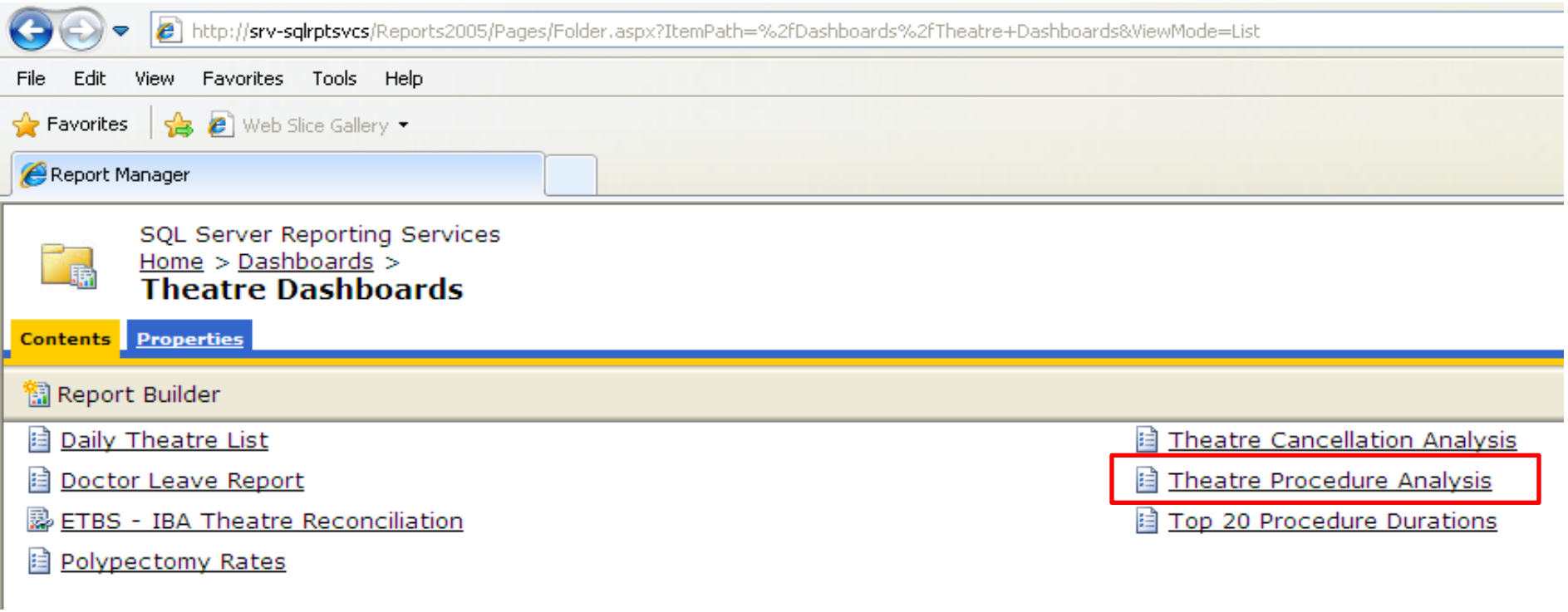

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SQL Server Reporting Services
Home > Dashboards > Theatre Dashboards >
Theatre Procedure Analysis

View | Properties | History | Subscriptions

New Subscription

Start Date	4/11/2013	End Date	10/11/2013 11:59:59 PM
Theatre	(Null)	Unit	(Null)
Surgeon	(Null)	Surgical Registrar	(Null)
Anaesthetist	(Null)	Anaesthetic Registrar	(Null)
On ESIS WL	All		

1 of 8 | 100% | Find | Next | Select a format | Export

Theatre Procedure Analysis

04/11/2013 To 10/11/2013

BHS Home

Parameters: / [] / / /

Surgery Start Time

		OPR1	OPR2	OPR3	OPR4	OPR5	OPR6	OPR7	PROC2	RAD	Rm1CVS
04 Nov 2013	Mon	14:06	13:42	08:55	08:51	08:32	09:14		13:43		08:35
05 Nov 2013	Tue	09:03		08:48	08:59	09:41	08:47		08:45		08:59
06 Nov 2013	Wed	08:39	09:16	07:46	08:42	08:55	08:47		08:39	13:56	08:40
07 Nov 2013	Thu		08:47	08:38	08:43	08:55	15:04		08:38		08:56
08 Nov 2013	Fri				19:25			09:16			
09 Nov 2013	Sat				10:01						
10 Nov 2013	Sun			19:21	09:26						

21/11/2013 16:38

Ballarat Health Services
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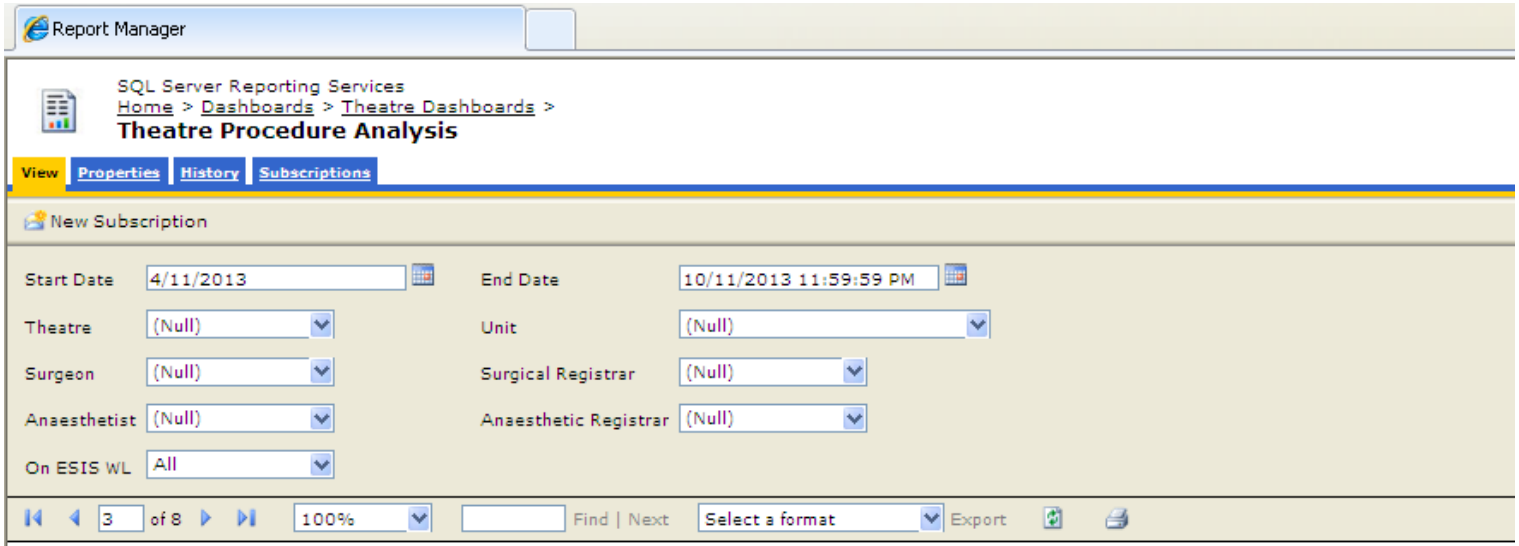

Theatre Procedure Analysis

04/11/2013 To 10/11/2013

BHS Home

Parameters: / [] / / /

Contact Hours

		07:00 - 12:30		12:30 - 17:30		17:30 - 24:00		24:00 - 07:00		Total Hrs	
		Contact Hrs	# Patients	Contact Hrs	# Patients	Contact Hrs	# Patients	Contact Hrs	# Patients	Contact Hrs	# Patients
04 Nov 2013	Mon	27.42	18	28.62	33	4.55	4	.	0	60.58	55
05 Nov 2013	Tue	24.47	26	21.73	21	3.37	3	.	0	49.57	50
06 Nov 2013	Wed	31.03	31	24.13	23	3.72	3	0.42	1	59.30	58
07 Nov 2013	Thu	22.00	26	19.32	15	4.72	3	.	0	46.03	44
08 Nov 2013	Fri	3.35	3	3.80	3	4.10	3	3.70	3	14.95	12
09 Nov 2013	Sat	3.88	2	1.52	2	.	0	0.68	1	6.08	5
10 Nov 2013	Sun	3.32	3	5.05	3	4.73	4	.	0	13.10	10
Total Hrs		115.47	109	104.17	100	25.18	20	4.80	5	249.62	234

21/11/2013 16:38

Ballarat Health Services
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SQL Server Reporting Services

Home > Dashboards > Theatre Dashboards >

Theatre Procedure Analysis

View | Properties | History | Subscriptions

New Subscription

Start Date	4/11/2013	End Date	10/11/2013 11:59:59 PM
Theatre	(Null)	Unit	(Null)
Surgeon	(Null)	Surgical Registrar	(Null)
Anaesthetist	(Null)	Anaesthetic Registrar	(Null)
On ESIS WL	All		

8 of 8 | 100% | Find | Next | Select a format | Export

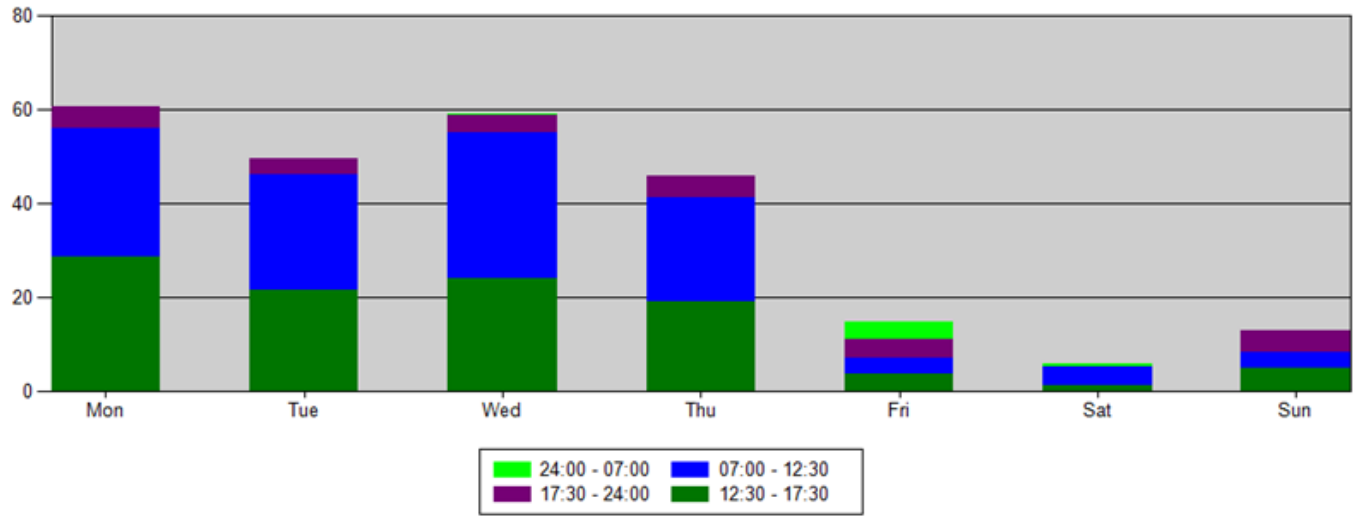
Theatre Procedure Analysis

04/11/2013 To 10/11/2013

BHS Home

Parameters: / [] / / /

Contact Hours



Ballarat Health Services
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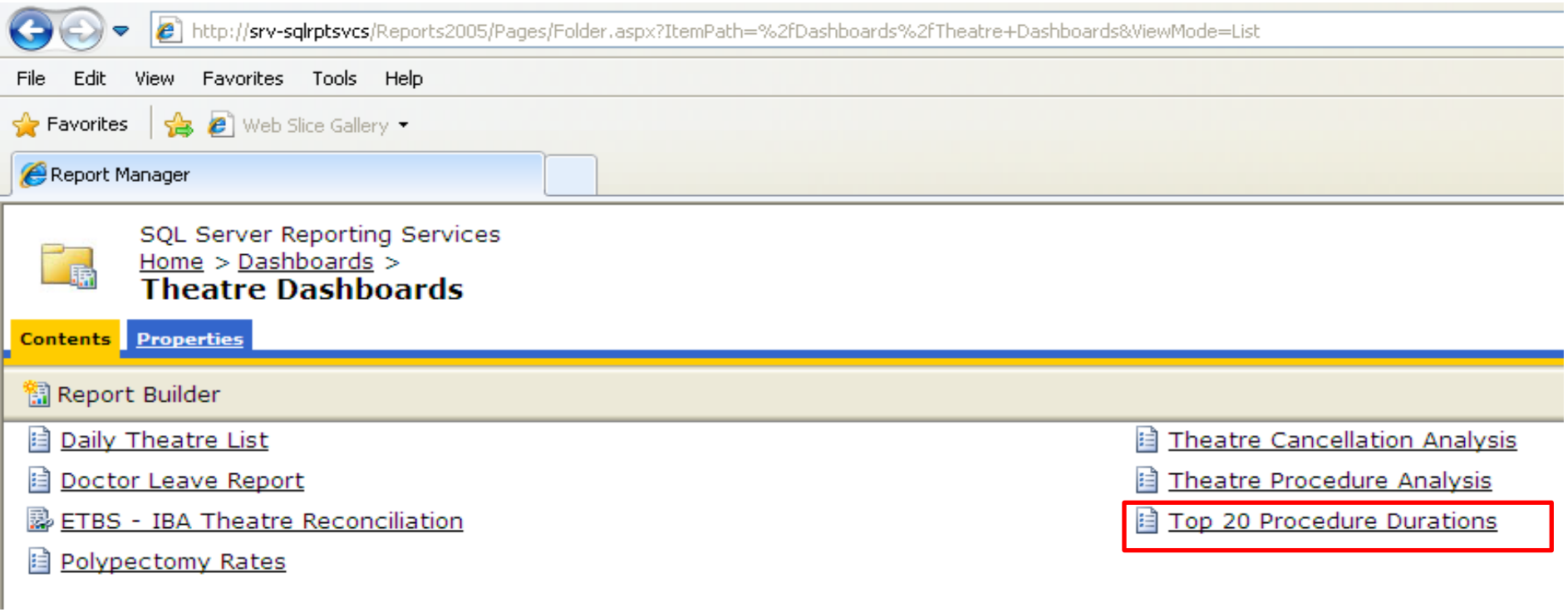
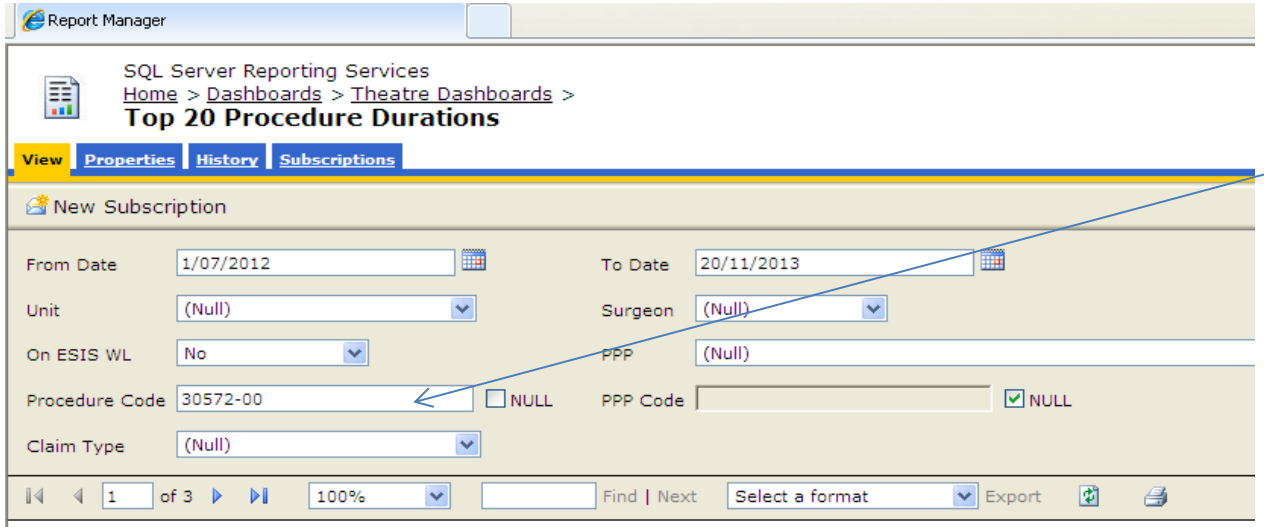


Ballarat Health Services
Putting your health first



Pick a Procedure

By Surgeon

	30572-00 Laparoscopic appendicectomy				
	Proc Count	Avg Surg Dur (Mins)	Avg The Dur (Mins)	Avg LoS (Days)	Est LoS
Clinicians	1	28	55	1.83	0.00
	24	60	92	2.31	0.00
	2	72	98	1.75	0.00
	26	43	77	1.98	0.00
	11	55	86	2.45	0.00
	1	43	74	0.79	0.00
	1	62	95	1.75	0.00
	1	39	77	1.63	0.00
	36	42	78	3.28	0.00
	4	57	80	2.32	0.00
	5	70	104	1.84	0.00
	2	58	89	2.21	0.00
	1	23	64	2.25	0.00
	4	69	98	1.54	0.00
	7	58	103	2.74	0.00
	4	53	90	1.40	0.00

Lap Append

Ballarat Health Services
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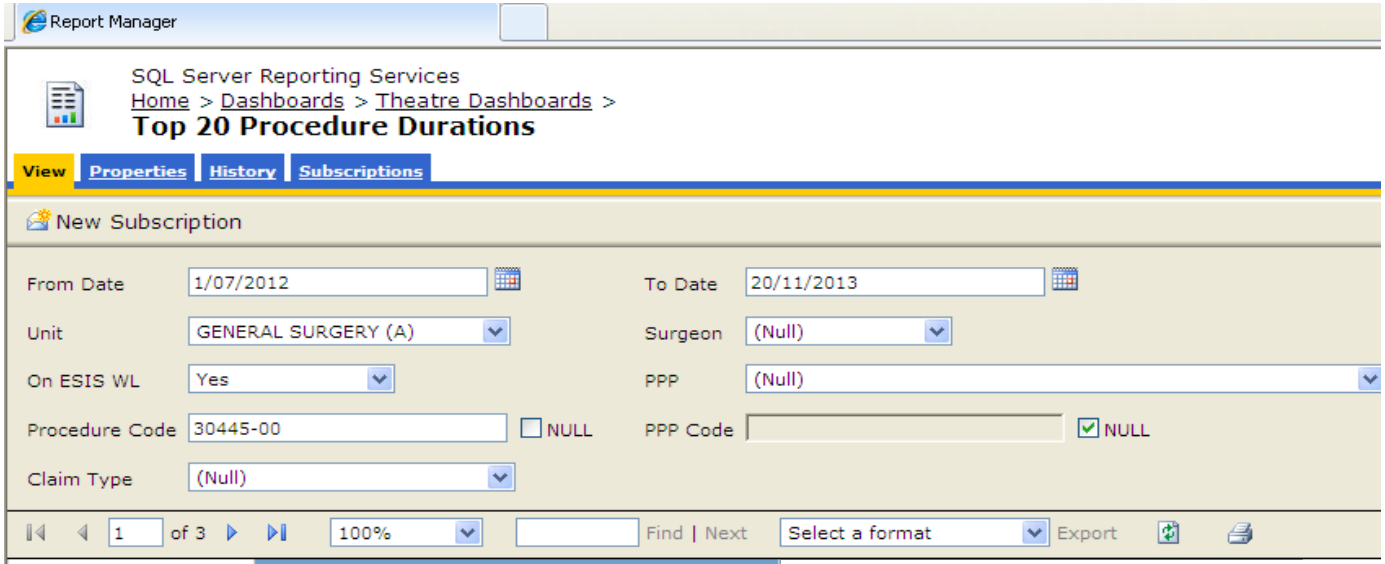

	30445-00				
	Laparoscopic cholecystectomy				
	Proc Count	Avg Surg Dur (Mins)	Avg The Dur (Mins)	Avg LoS (Days)	Est LoS
Clinicians	21	80	123	2.15	1.14
	27	78	113	1.30	1.19
	10	70	101	1.50	1.00
	21	83	125	1.42	1.24
	18	82	126	1.23	1.56
	1	119	145	1.13	2.00
	1	52	85	2.25	1.00
	2	74	117	4.62	1.50
	1	136	175	3.17	1.00
	29	67	104	2.00	1.24
	15	91	139	1.87	1.13
	1	91	125	1.21	1.00
	3	88	133	1.53	2.00
	1	50	97	1.00	1.00
	15	60	106	1.28	1.33
	18	68	103	2.04	1.33
	184	**76**	**116**	**1.70**	**1.26**

Lap Chole

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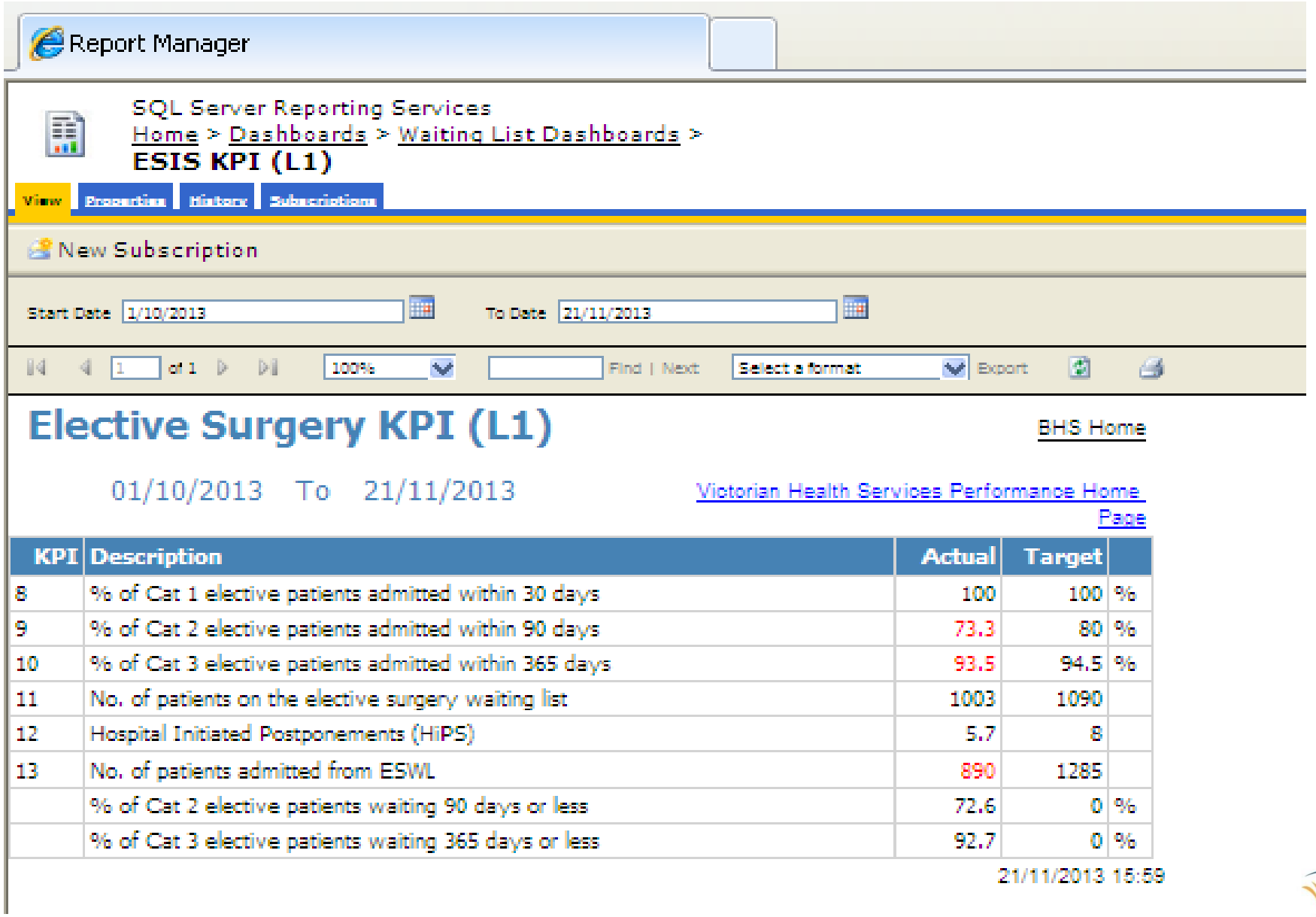

Elective Surgery KPI (L1)

BHS Home

01/10/2013 To 21/11/2013

Victorian Health Services Performance Home Page

KPI	Description	Actual	Target	
8	% of Cat 1 elective patients admitted within 30 days	100	100	%
9	% of Cat 2 elective patients admitted within 90 days	73.3	80	%
10	% of Cat 3 elective patients admitted within 365 days	93.5	94.5	%
11	No. of patients on the elective surgery waiting list	1003	1090	
12	Hospital Initiated Postponements (HiPS)	5.7	8	
13	No. of patients admitted from ESWL	890	1285	
	% of Cat 2 elective patients waiting 90 days or less	72.6	0	%
	% of Cat 3 elective patients waiting 365 days or less	92.7	0	%

21/11/2013 15:59

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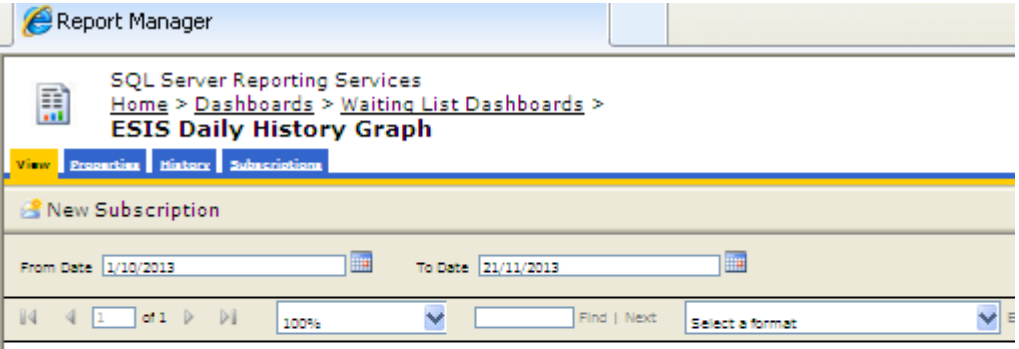

WLDate	# RFC	# NRFC	RFC Target
01/10/2013	1142	218	1090
02/10/2013	1149	196	1090
03/10/2013	1144	218	1090
04/10/2013	1127	223	1090
05/10/2013	1131	225	1090
06/10/2013	1131	225	1090
07/10/2013	1101	225	1090
08/10/2013	1089	228	1090
09/10/2013	1082	229	1090
10/10/2013	1083	232	1090
11/10/2013	1083	234	1090
12/10/2013	1086	235	1090
13/10/2013	1085	235	1090
14/10/2013	1080	236	1090
15/10/2013	1064	255	1090
16/10/2013	1063	253	1090
17/10/2013	1063	254	1090
18/10/2013	1057	253	1090
19/10/2013	1061	253	1090
20/10/2013	1061	252	1090
21/10/2013	1058	248	1090
22/10/2013	1057	252	1090
23/10/2013	1047	254	1090
24/10/2013	1053	255	1090
25/10/2013	1051	250	1090
26/10/2013	1054	250	1090
27/10/2013	1054	249	1090

Waiting List – Ready for Care & Not Ready for Care Movement on a Daily Basis

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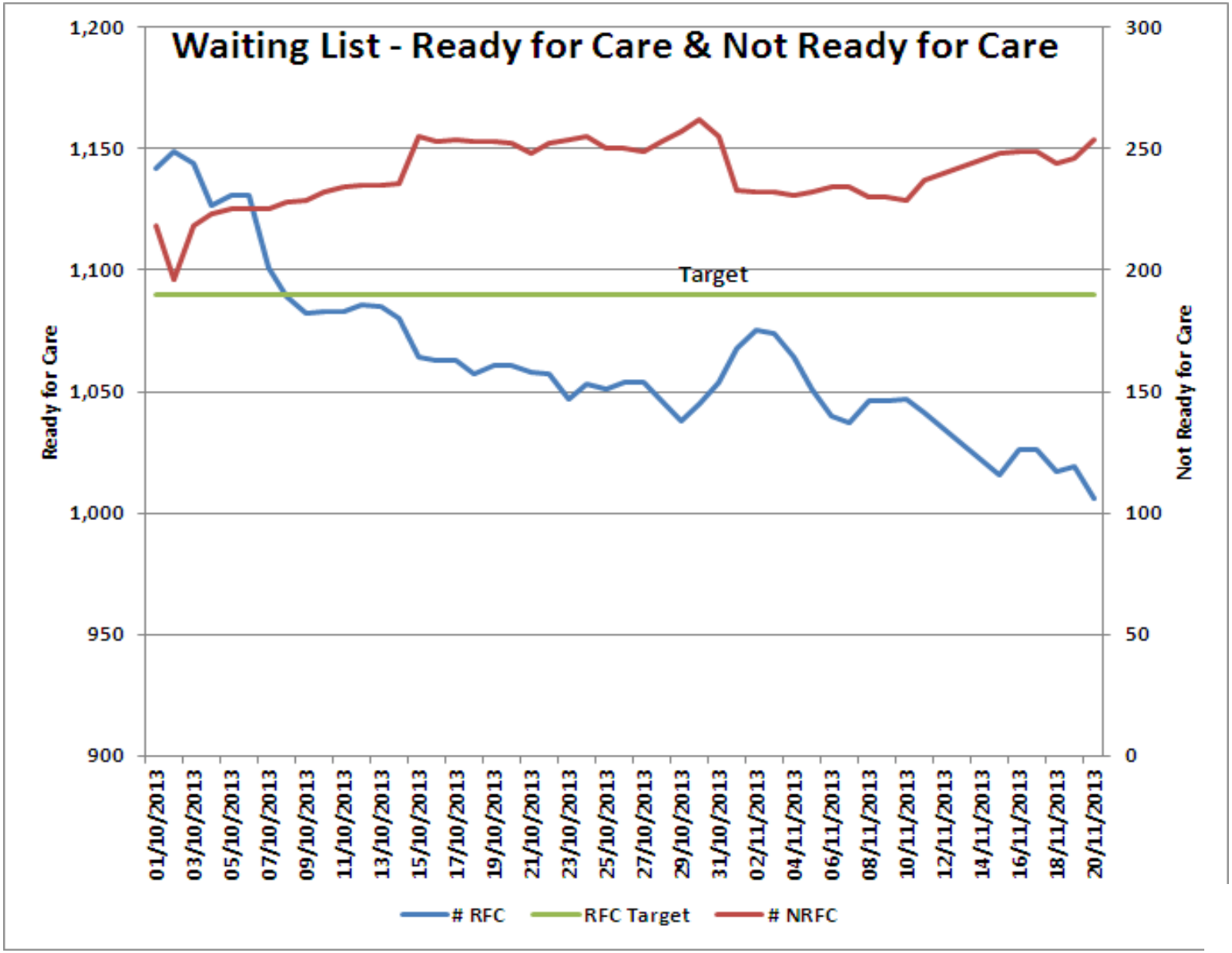

Ballarat Health Services
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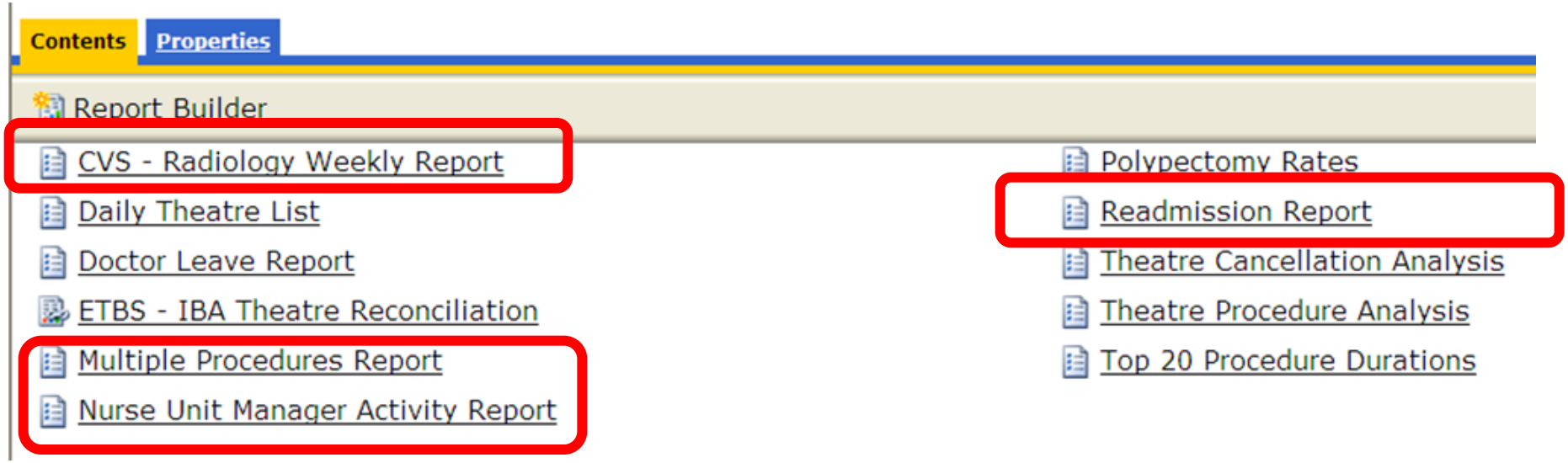
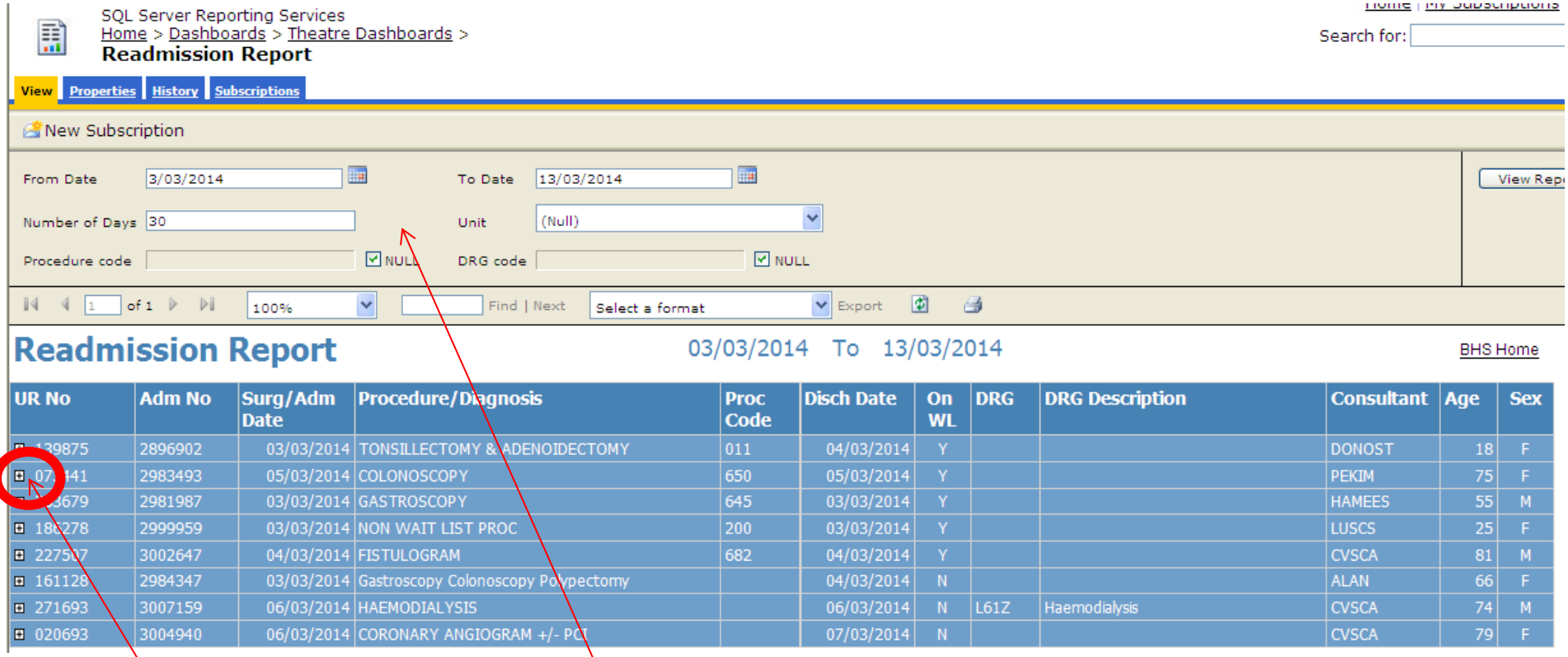
Over the past 3 months we have developed a number of other reports…….



Ballarat Health Services
Putting your health first

Readmission Report March 3rd – March 13th



UR No	Adm No	Surg/Adm Date	Procedure/Diagnosis	Proc Code	Disch Date	On WL	DRG	DRG Description	Consultant	Age	Sex
139875	2896902	03/03/2014	TONSILLECTOMY & ADENOIDECTOMY	011	04/03/2014	Y			DONOST	18	F
07[illegible]141	2983493	05/03/2014	COLONOSCOPY	650	05/03/2014	Y			PEKIM	75	F
[illegible]3679	2981987	03/03/2014	GASTROSCOPY	645	03/03/2014	Y			HAMEES	55	M
186278	2999959	03/03/2014	NON WAIT LIST PROC	200	03/03/2014	Y			LUSCS	25	F
227507	3002647	04/03/2014	FISTULOGRAM	682	04/03/2014	Y			CVSCA	81	M
161128	2984347	03/03/2014	Gastroscopy Colonoscopy Polypectomy		04/03/2014	N			ALAN	66	F
271693	3007159	06/03/2014	HAEMODIALYSIS		06/03/2014	N	L61Z	Haemodialysis	CVSCA	74	M
020693	3004940	06/03/2014	CORONARY ANGIOGRAM +/- PCI		07/03/2014	N			CVSCA	79	F

Click and it expands

Discriminators

- **Number of days**
- **Unit**
- **Procedure code**
- **DRG Code**

Readmission Report March 3rd – March 13th

New Subscription

From Date 3/03/2014 To Date 13/03/2014 View Rep

Number of Days 30 Unit (Null)

Procedure code NULL DRG code NULL

1 of 1 100% Find | Next Select a format Export

Readmission Report

03/03/2014 To 13/03/2014

BHS Home

UR No	Adm No	Surg/Adm Date	Procedure/Diagnosis	Proc Code	Disch Date	On WL	DRG	DRG Description	Consultant	Age	Sex
139875	2896902	03/03/2014	TONSILLECTOMY & ADENOIDECTOMY	011	04/03/2014	Y			DONOST	18	F
	3010504	08/03/2014	POST OP TONSILECTOMY BLEED								
073441	2983493	05/03/2014	COLONOSCOPY	650	05/03/2014	Y			PEKIM	75	F
	3014512	13/03/2014	ASCITES 2 ABDO MASS								
263679	2981987	03/03/2014	GASTROSCOPY	645	03/03/2014	Y			HAMEES	55	M
186278	2999959	03/03/2014	NON WAIT LIST PROC	200	03/03/2014	Y			LUSCS	25	F
227507	3002647	04/03/2014	FISTULOGRAM	682	04/03/2014	Y			CVSCA	81	M
	3005285	05/03/2014									
	3008388	07/03/2014	DIALYSIS								
	3010775	10/03/2014	DIALYSIS								
	3011004	12/03/2014									
161128	2984347	03/03/2014	Gastroscopy Colonoscopy Polypectomy		04/03/2014	N			ALAN	66	F
271693	3007159	06/03/2014	HAEMODIALYSIS		06/03/2014	N	L61Z	Haemodialysis	CVSCA	74	M
020693	3004940	06/03/2014	CORONARY ANGIOGRAM +/- PCI		07/03/2014	N			CVSCA	79	F

Provides details of Procedure/Diagnosis associated with the admission

Readmission within 30 Days Report March 3rd -

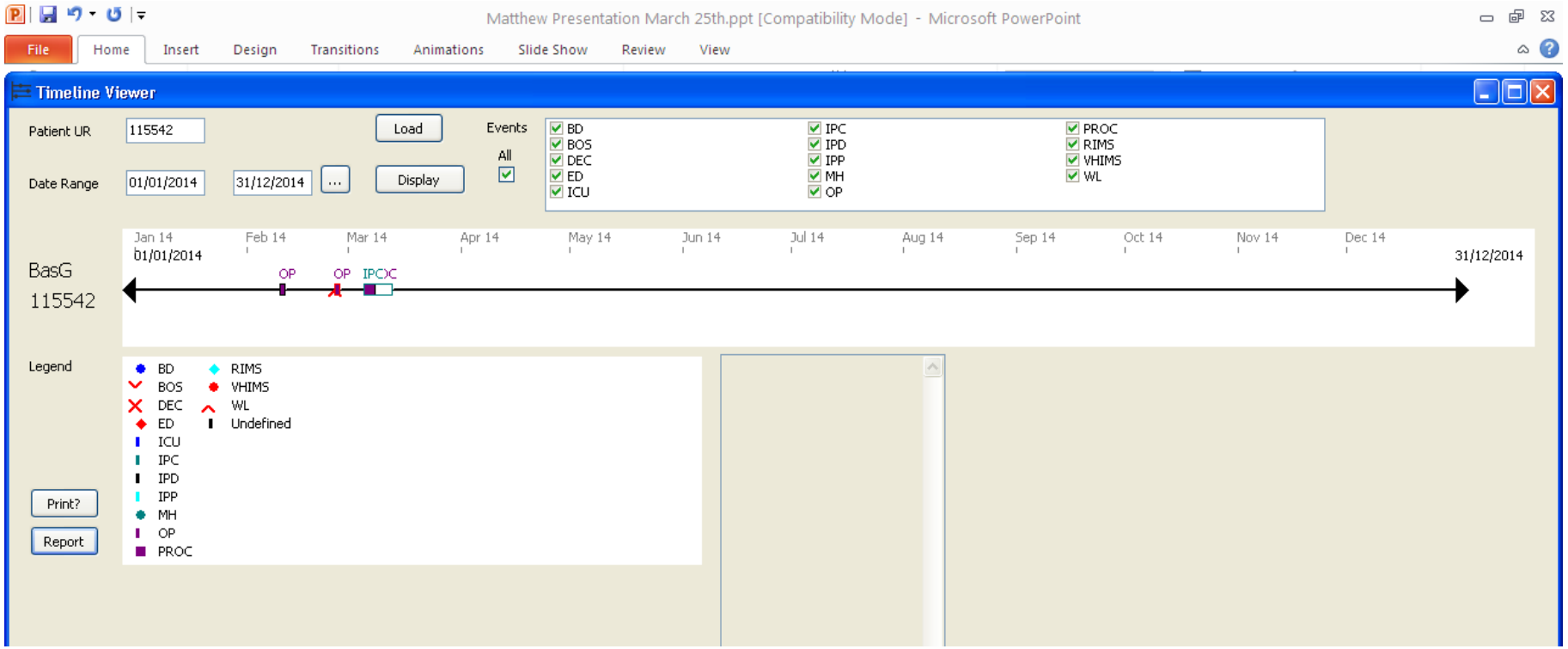
Readmission Report

03/03/2014 To 13/03/2014

BHS Home

UR No	Adm No	Surg/Adm Date	Procedure/Diagnosis	Proc Code	Disch Date	On WL	DRG	DRG Description	Consultant	Age	Sex
139875	2896902	03/03/2014	TONSILLECTOMY & ADENOIDECTOMY	011	04/03/2014	Y			DONOST	18	F
	3010504	08/03/2014	POST OP TONSILECTOMY BLEED								
186278	2999959	03/03/2014	NON WAIT LIST PROC	200	03/03/2014	Y			LUSCS	25	F
	3010494	08/03/2014	ENDOMETRITIS POST TOP/ABDO PAIN FI								
227507	3002647	04/03/2014	FISTULOGRAM	682	04/03/2014	Y			CVSCA	81	M
	3005285	05/03/2014									
	3008388	07/03/2014	DIALYSIS								
	3010775	10/03/2014	DIALYSIS								
	3011004	12/03/2014									
161128	2984347	03/03/2014	Gastroscopy Colonoscopy Polypectomy		04/03/2014	N			ALAN	66	F
	3011074	10/03/2014	ANAEMIA								
271693	3007159	06/03/2014	HAEMODIALYSIS		06/03/2014	N	L61Z	Haemodialysis	CVSCA	74	M
	3009683	08/03/2014									
	3010998	11/03/2014									
	3013216	13/03/2014	FISTULOPLASTY (DIALYSIS PRE-OP ADM 0745)								
020693	3004940	06/03/2014	CORONARY ANGIOGRAM +/- PCI		07/03/2014	N			CVSCA	79	F
	3010978	10/03/2014	CHEST PAIN FI								

Time Line Report

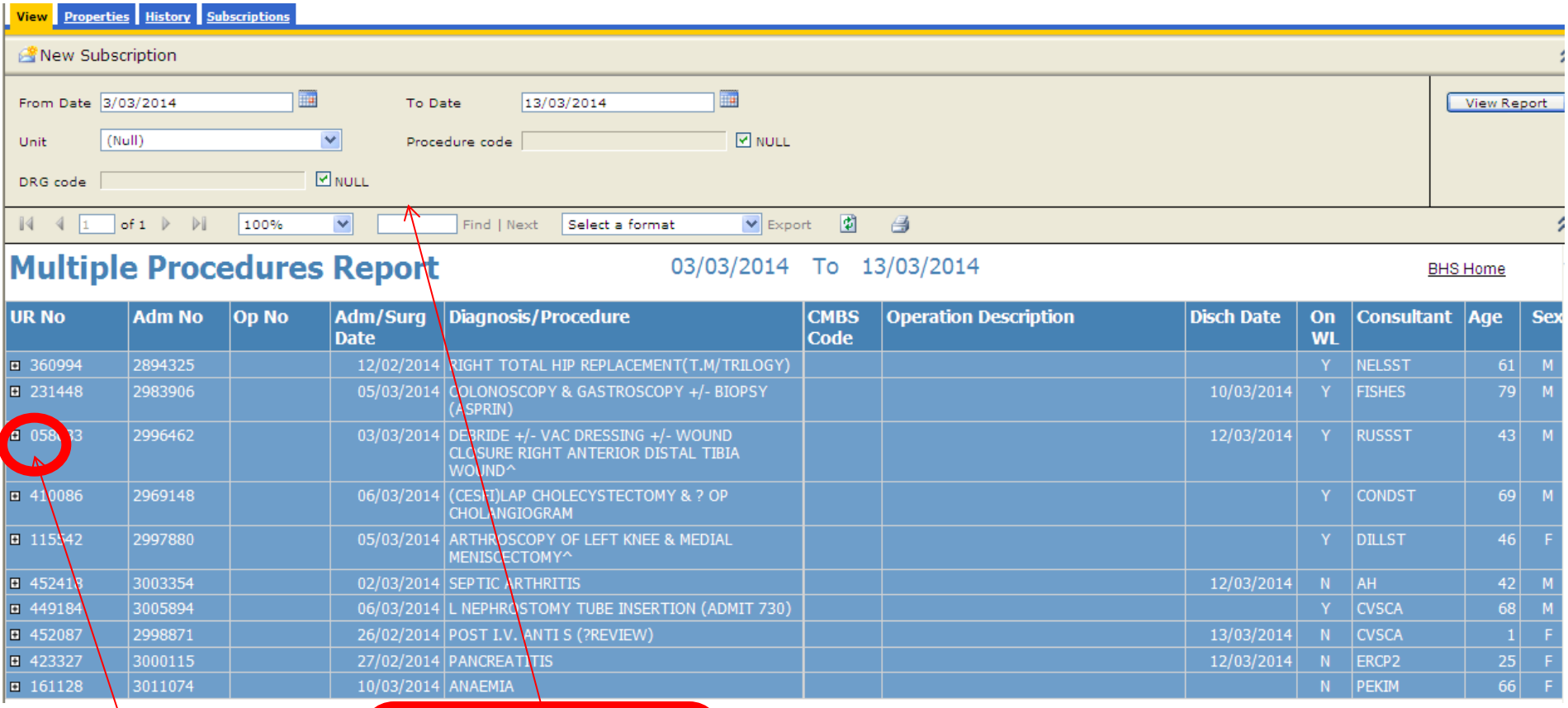


Benchmark Design Timeline

UR: **139875**

Event	Start	End	Description
OP	24/02/2014	24/02/2014	PAC - TELEPHONE (PDU)
IPD	03/03/2014	04/03/2014	TONSILLECTOMY^
PROC	03/03/2014	03/03/2014	TONSILLECTOMY
BD	03/03/2014	03/03/2014	2NS 1B
ED	07/03/2014	07/03/2014	5 DAYS POST TONSILECTOMY. ONLY TAKING SIPS OF H2O
IPD	08/03/2014	09/03/2014	POST OP TONSILECTOMY BLEED
BD	08/03/2014	08/03/2014	2N 02C
OP	18/03/2014	18/03/2014	EAR, NOSE & THROAT CLINIC 1

Multiple Procedures Report March 3rd – March 13th

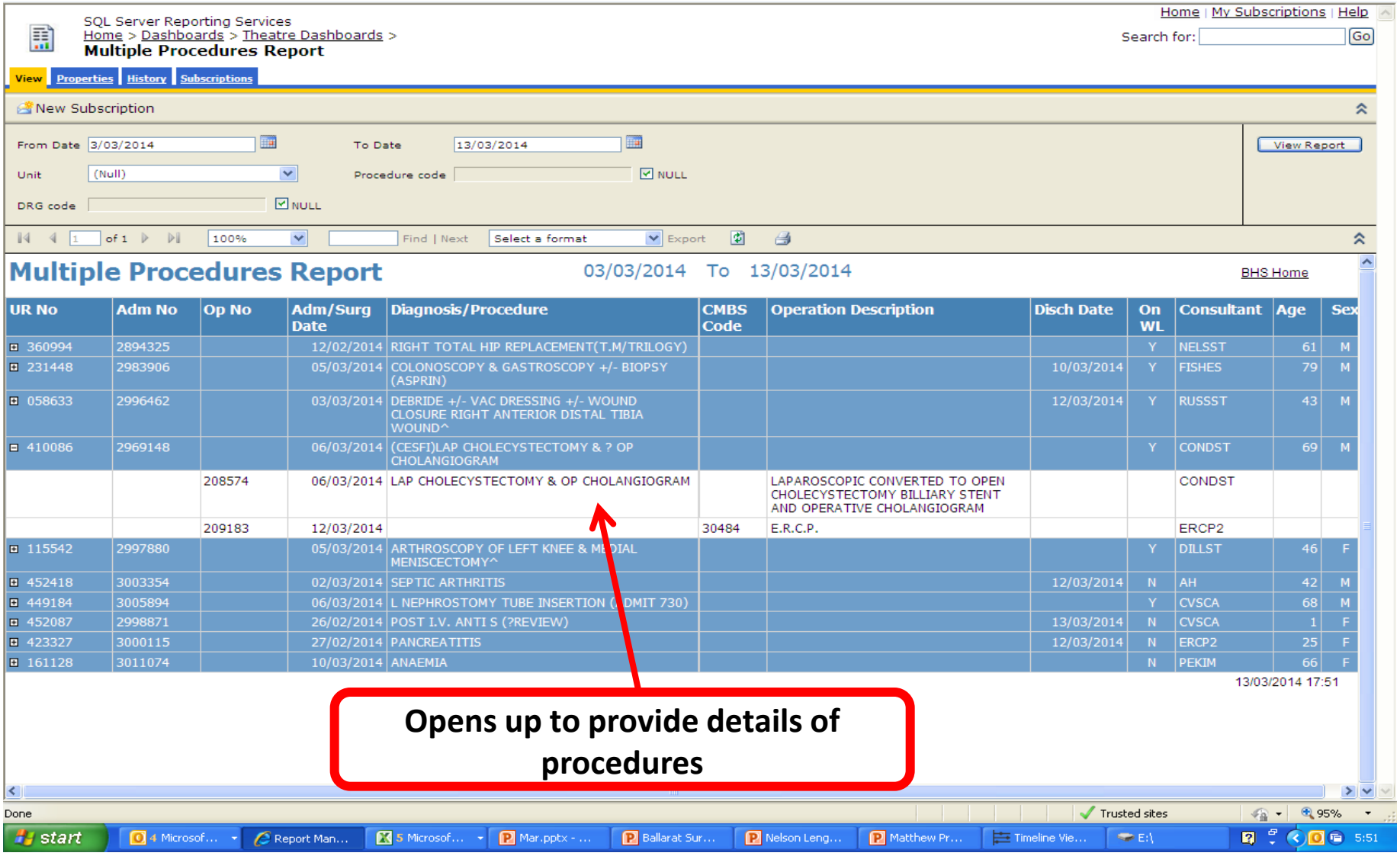


UR No	Adm No	Op No	Adm/Surg Date	Diagnosis/Procedure	CMBS Code	Operation Description	Disch Date	On WL	Consultant	Age	Sex
360994	2894325		12/02/2014	RIGHT TOTAL HIP REPLACEMENT(T.M/TRILOGY)				Y	NELSST	61	M
231448	2983906		05/03/2014	COLONOSCOPY & GASTROSCOPY +/- BIOPSY (ASPRIN)			10/03/2014	Y	FISHES	79	M
058[illegible]33	2996462		03/03/2014	DEBRIDE +/- VAC DRESSING +/- WOUND CLOSURE RIGHT ANTERIOR DISTAL TIBIA WOUND^			12/03/2014	Y	RUSSST	43	M
410086	2969148		06/03/2014	(CESD)LAP CHOLECYSTECTOMY & ? OP CHOLANGIOGRAM				Y	CONDST	69	M
115542	2997880		05/03/2014	ARTHROSCOPY OF LEFT KNEE & MEDIAL MENISCECTOMY^				Y	DILLST	46	F
452413	3003354		02/03/2014	SEPTIC ARTHRITIS			12/03/2014	N	AH	42	M
449184	3005894		06/03/2014	L NEPHROSTOMY TUBE INSERTION (ADMIT 730)				Y	CVSCA	68	M
452087	2998871		26/02/2014	POST I.V. ANTI S (?REVIEW)			13/03/2014	N	CVSCA	1	F
423327	3000115		27/02/2014	PANCREATITIS			12/03/2014	N	ERCP2	25	F
161128	3011074		10/03/2014	ANAEMIA				N	PEKIM	66	F

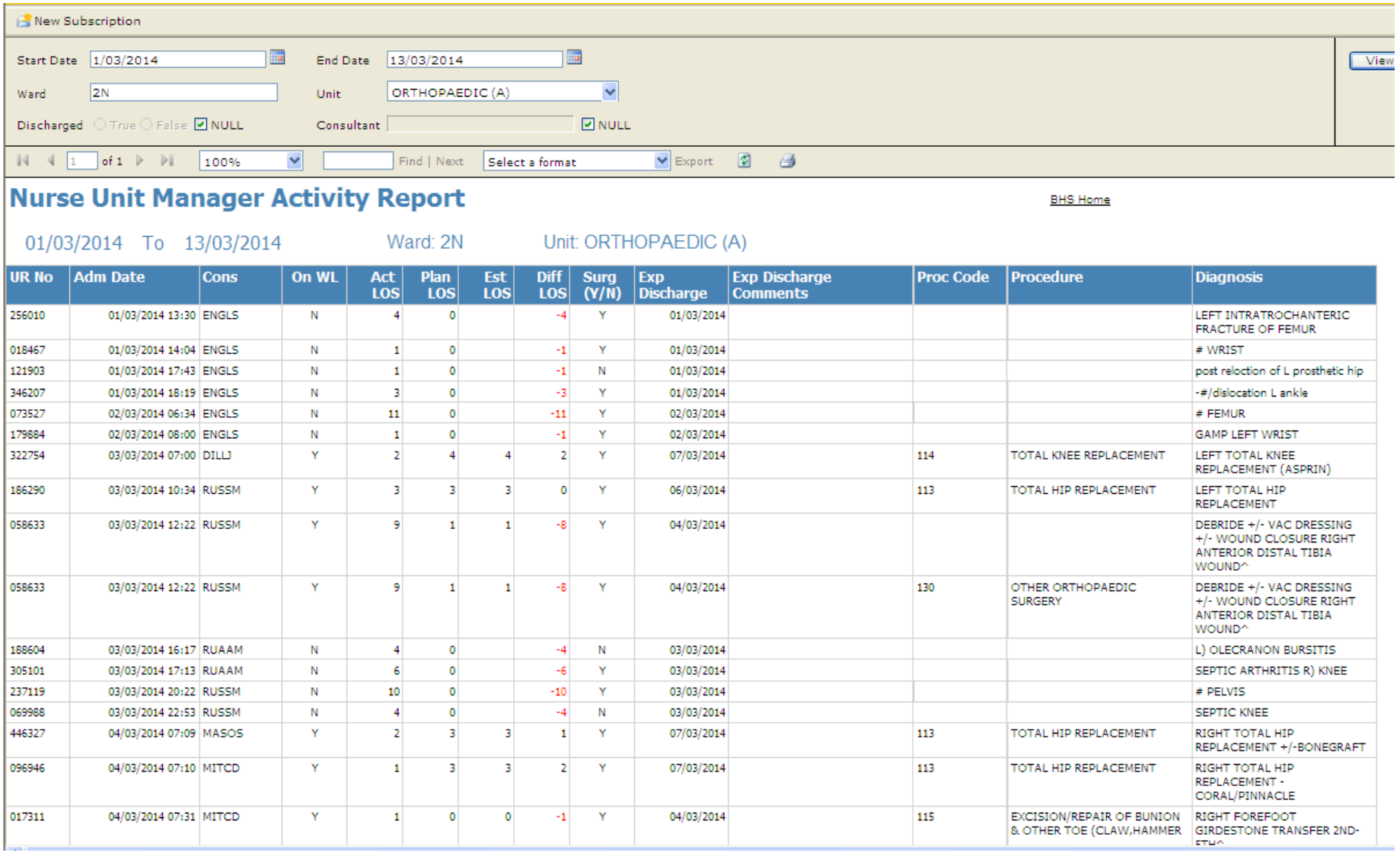
Click and it expands

Discriminators

- **Unit**
- **Procedure code**
- **DRG Code**


SQL Server Reporting Services
Home > Dashboards > Theatre Dashboards >
Multiple Procedures Report
Home | My Subscriptions | Help
Search for:
Go
View
Properties
History
Subscriptions
New Subscription
From Date 3/03/2014
To Date 13/03/2014
View Report
Unit (Null)
Procedure code
NULL
DRG code
NULL
1 of 1
100%
Find | Next
Select a format
Export
Multiple Procedures Report
03/03/2014 To 13/03/2014
BHS Home
UR No | Adm No | Op No | Adm/Surg Date | Diagnosis/Procedure | CMBS Code | Operation Description | Disch Date | On WL | Consultant | Age | Sex
360994 | 2894325 | | 12/02/2014 | RIGHT TOTAL HIP REPLACEMENT(T.M/TRILOGY) | | | | Y | NELSST | 61 | M
231448 | 2983906 | | 05/03/2014 | COLONOSCOPY & GASTROSCOPY +/- BIOPSY (ASPRIN) | | | 10/03/2014 | Y | FISHES | 79 | M
058633 | 2996462 | | 03/03/2014 | DEBRIDE +/- VAC DRESSING +/- WOUND CLOSURE RIGHT ANTERIOR DISTAL TIBIA WOUND^ | | | 12/03/2014 | Y | RUSSST | 43 | M
410086 | 2969148 | | 06/03/2014 | (CESFI)LAP CHOLECYSTECTOMY & ? OP CHOLANGIOGRAM | | | | Y | CONDST | 69 | M
| | 208574 | 06/03/2014 | LAP CHOLECYSTECTOMY & OP CHOLANGIOGRAM | | LAPAROSCOPIC CONVERTED TO OPEN CHOLECYSTECTOMY BILLIARY STENT AND OPERATIVE CHOLANGIOGRAM | | | CONDST | | |
| | 209183 | 12/03/2014 | | 30484 | E.R.C.P. | | | ERCP2 | | |
115542 | 2997880 | | 05/03/2014 | ARTHROSCOPY OF LEFT KNEE & MEDIAL MENISCECTOMY^ | | | | Y | DILLST | 46 | F
452418 | 3003354 | | 02/03/2014 | SEPTIC ARTHRITIS | | | 12/03/2014 | N | AH | 42 | M
449184 | 3005894 | | 06/03/2014 | L NEPHROSTOMY TUBE INSERTION (DMIT 730) | | | | Y | CVSCA | 68 | M
452087 | 2998871 | | 26/02/2014 | POST I.V. ANTI S (?REVIEW) | | | 13/03/2014 | N | CVSCA | 1 | F
423327 | 3000115 | | 27/02/2014 | PANCREATITIS | | | 12/03/2014 | N | ERCP2 | 25 | F
161128 | 3011074 | | 10/03/2014 | ANAEMIA | | | | N | PEKIM | 66 | F
13/03/2014 17:51
Opens up to provide details of procedures
Done
Trusted sites
95%
start
4 Microsof...
Report Man...
5 Microsof...
Mar.pptx - ...
Ballarat Sur...
Nelson Leng...
Matthew Pr...
Timeline Vie...
E:\
5:51

Draft Nurse Unit Managers Report



New Subscription

Start Date 1/03/2014 End Date 13/03/2014 View

Ward 2N Unit ORTHOPAEDIC (A)

Discharged True False NULL Consultant NULL

1 of 1 100% Find | Next Select a format Export

Nurse Unit Manager Activity Report

BHS Home

01/03/2014 To 13/03/2014 Ward: 2N Unit: ORTHOPAEDIC (A)

UR No	Adm Date	Cons	On WL	Act LOS	Plan LOS	Est LOS	Diff LOS	Surg (Y/N)	Exp Discharge	Exp Discharge Comments	Proc Code	Procedure	Diagnosis
256010	01/03/2014 13:30	ENGLS	N	4	0		-4	Y	01/03/2014				LEFT INTRATROCHANTERIC FRACTURE OF FEMUR
018467	01/03/2014 14:04	ENGLS	N	1	0		-1	Y	01/03/2014				# WRIST
121903	01/03/2014 17:43	ENGLS	N	1	0		-1	N	01/03/2014				post reloction of L prosthetic hip
346207	01/03/2014 18:19	ENGLS	N	3	0		-3	Y	01/03/2014				-#/dislocation L ankle
073527	02/03/2014 06:34	ENGLS	N	11	0		-11	Y	02/03/2014				# FEMUR
179884	02/03/2014 08:00	ENGLS	N	1	0		-1	Y	02/03/2014				GAMP LEFT WRIST
322754	03/03/2014 07:00	DILLJ	Y	2	4	4	2	Y	07/03/2014		114	TOTAL KNEE REPLACEMENT	LEFT TOTAL KNEE REPLACEMENT (ASPRIN)
186290	03/03/2014 10:34	RUSSM	Y	3	3	3	0	Y	06/03/2014		113	TOTAL HIP REPLACEMENT	LEFT TOTAL HIP REPLACEMENT
058633	03/03/2014 12:22	RUSSM	Y	9	1	1	-8	Y	04/03/2014				DEBRIDE +/- VAC DRESSING +/- WOUND CLOSURE RIGHT ANTERIOR DISTAL TIBIA WOUND^
058633	03/03/2014 12:22	RUSSM	Y	9	1	1	-8	Y	04/03/2014		130	OTHER ORTHOPAEDIC SURGERY	DEBRIDE +/- VAC DRESSING +/- WOUND CLOSURE RIGHT ANTERIOR DISTAL TIBIA WOUND^
188604	03/03/2014 16:17	RUAAM	N	4	0		-4	N	03/03/2014				L) OLECRANON BURSITIS
305101	03/03/2014 17:13	RUAAM	N	6	0		-6	Y	03/03/2014				SEPTIC ARTHRITIS R) KNEE
237119	03/03/2014 20:22	RUSSM	N	10	0		-10	Y	03/03/2014				# PELVIS
069988	03/03/2014 22:53	RUSSM	N	4	0		-4	N	03/03/2014				SEPTIC KNEE
446327	04/03/2014 07:09	MASOS	Y	2	3	3	1	Y	07/03/2014		113	TOTAL HIP REPLACEMENT	RIGHT TOTAL HIP REPLACEMENT +/-BONEGRAFT
096946	04/03/2014 07:10	MITCD	Y	1	3	3	2	Y	07/03/2014		113	TOTAL HIP REPLACEMENT	RIGHT TOTAL HIP REPLACEMENT - CORAL/PINNACLE
017311	04/03/2014 07:31	MITCD	Y	1	0	0	-1	Y	04/03/2014		115	EXCISION/REPAIR OF BUNION & OTHER TOE (CLAW,HAMMER	RIGHT FOREFOOT GIRDESTONE TRANSFER 2ND-5TH^

In Summary

Ballarat Health Service has develop a range of Dashboard Reports which provide relevant and timely information relation to the activity of Perioperative Services.

The reports are accessed daily, weekly and monthly with the data used in local workplace area to the Board. It has helped enormously in supporting business cases and attracting funding

Ballarat Health Services
Putting your health first