

**GUIDE**

# **A Guide to the NSW Trauma Process Indicators**

**Version 1.1**

**June 2017**

NSW Institute of Trauma and Injury Management

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## Introduction

Measures of the performance of the NSW trauma system are required to provide guidance on quality improvement activities, benchmarking and reporting, research, education and future investment. These measures are known as trauma process indicators (PIs) and are a fundamental part of monitoring the trauma system.

The following process indicators were developed by the NSW Institute of Trauma and Injury Management (ITIM) as a means to evaluate the care of severely injured patients.

There is currently a lack of published studies regarding their use in trauma but it is generally agreed that benchmarks are required to evaluate quality of care across a system. Therefore these process indicators were developed based on the best available evidence regarding trauma quality improvement programs, and consensus among data managers and clinicians.

It is anticipated that these process indicators themselves undergo continuous monitoring and adjustment in consultation with clinicians as our understanding of their usefulness evolves.

These indicators are to be collected and reported for every major trauma case reviewed by trauma services across NSW as part of the State-wide Trauma Minimum Dataset. Their presence in a particular case does not necessarily indicate poorer quality of care or correlate with adverse outcomes, but they do provide a useful marker to investigate cases further where clinically appropriate.

Most of the trauma PIs below have been adapted by the NSW ITIM Data Management Committee based on previous work by Stelfox et al (Stelfox, Straus, Nathens, & Bobranska-artiuch, 2011).

1. Scene time (pre-hospital)
2. Time to laparotomy
3. Time to embolisation
4. Unplanned admission to ICU
5. Complications
6. Unplanned return to the operating room
7. Missed injuries
8. Death review
9. Retrieval team turnaround time
10. Medical retrieval notification time
11. Intubation in ED with GCS <9 in head injury

## PI - 1: Scene time (Pre-hospital)

### Background and Rationale

Prolonged scene times may be associated with increased morbidity and mortality of neurotrauma, haemodynamically unstable and penetrating injured patients (Brown et al., 2016; Harmsen et al., 2015). Therefore, this cohort of patients should be transported to hospital as soon as possible for definitive treatment.

For the undifferentiated haemodynamically stable trauma patient, prolonged scene time has an association with increased ICU and hospital length of stay (Quality of Trauma for Adult Care, 2013) with no distinguishable increase in the odds of mortality (Brown et al., 2016; Harmsen et al., 2015).

Literature shows that prehospital scene times are important and serve as an indicator for sensitive gauges of the efficiency of the system. (Rosengart, Nathens, & Schiff, 2007) This PI has aligned with other current Australian Indicators of prehospital scene times of 20 minutes or less for major trauma patients (Dallow et al., 2010; Funder, Petersen, & Steinmetz, 2011; Victorian & Committee on Trauma, 2014) and supported by Stelfox et al 2011 (Stelfox et al., 2011).

### Definitions

Time of Arrival at Patient:

- The date and time the first pre-hospital crew reached the patient at the scene.
  - This is documented as the “Patient Contact” time on the Ambulance Patient Health Care Record (PHCR) documentation (see example p.155)
    - Or
  - “@ Patient” on the Ambulance Electronic Medical Record (see example p.154).

Scene Departure time:

- The date and time the pre-hospital crew left the scene with the patient.
  - This is documented as the “Depart Scene” time on the Ambulance PHCR documentation
    - Or
  - “Loaded” on the Ambulance Electronic Medical Record. It is recorded as “Left Location” as date and time in Collector.

The [Appendix](#) contains the screenshots of various retrieval sheets from different agencies and the fields which provide the necessary information are marked.

### Calculation of Scene Time Calculation

The pre-hospital scene time is calculated from the time the pre-hospital crew arrives at the patient (Arrived at Patient time) to the time they depart the scene with the patient (Left Location time).

This will be calculated while creating reports

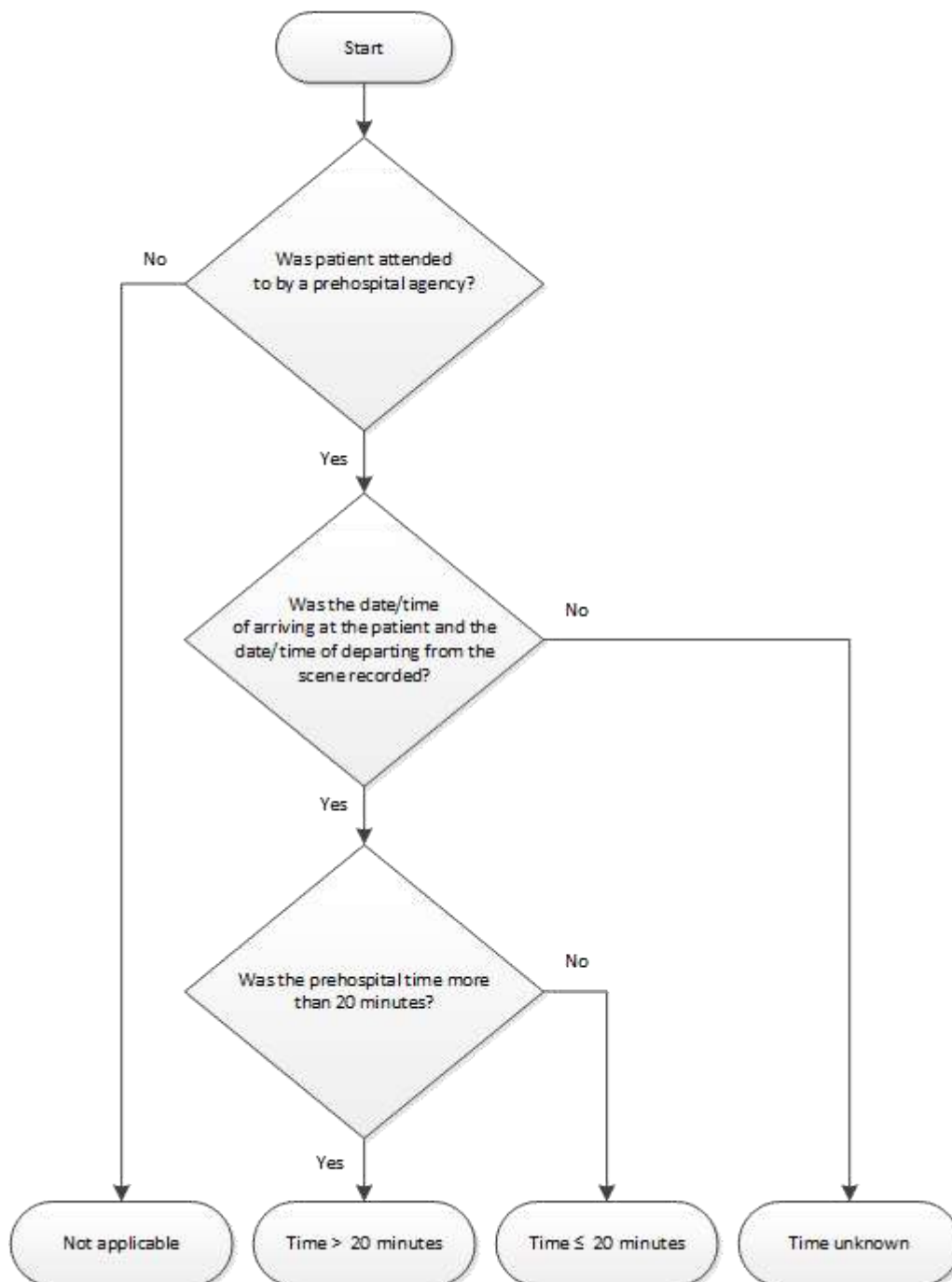
*Left Location date and time – Arrived at Patient date and time = Pre-hospital scene time*



e.g. 01/01/2001 0900hrs – 01/01/2001 0830hrs = 30mins

Dates, times and if the patient was extracted and it has been noted by the pre-hospital crew it can be recorded in collector. ([See Appendix](#))

## Flowchart



## Comments

It is agreed that this scene time is subject of debate, and will undergo continuous monitoring and adjustment in consultation with clinicians and evidence.

Where there has been a delay and the extrication time has not been completed, look for an explanation in the notes. If a violation of the nominated scene time is recorded, clinical consideration should be provided in instances where necessary when life critical interventions, prolonged egress/ingress or extrication of trapped major trauma patients are required (Gonzalez, Cummings, Phelan, Mulekar, & Rodning, 2009).

Comments should refer to events unexplained by the extrication time on the NSW Ambulance Service Patient Health Care Record or retrieval record. *e.g. patient transferred from one pre-hospital crew to another.*

- [Workflow processes are provided in the appendix to guide the consistency in collecting and reporting of the process indicators. Please see Appendix 1.](#)

## New Data Elements identified for MDS

Collector Tab Location	Data Element Name	Description	Mandatory Status after implementation	Current Status	Collector Field Name
Pre-hospital: Scene/Transport	Scene/Transport Providers - Agency	Pre-hospital Provider Agency	Conditional	Conditional	PH_A_ID_L
Pre-hospital: Scene/Transport	Scene/Transport Providers - Mode	Pre-hospital Provider Mode	Conditional	Conditional	PH_MODE_ID_L
Pre-hospital: Scene/Transport	Pre-hospital Provider - Arrived at Patient: Date <u>and</u> Time	Date and time transport provider arrived at patient	Conditional	Not in MDS	PH_A_EVENT
Pre-hospital: Scene/Transport	Pre-hospital Provider - Left Location: Date <u>and</u> Time	Date and time transport provider left location with patient	Conditional	Not in MDS	PH_L_EVENT
Pre-hospital: Scene/Transport	Pre-hospital/Scene/Transport	Was Patient Extricated?	Mandatory	Not in MDS	PH_EXT_YN
Pre-hospital: Scene/Transport	Pre-hospital/Scene/Transport	Patient Extrication duration in minutes	Conditional	Not in MDS	PH_EXT_MIN

## PI - 2: Time to laparotomy

### Background and Rationale

Prolonged time between decision in the ED and laparotomy may be associated with increased mortality (Barbosa et al., 2013; Stelfox et al., 2011). Therefore, urgent laparotomies for patients with suspected intra-abdominal bleeding and haemodynamic instability in trauma should occur without delay.

### Definitions

ED Arrival:

- Time the patient arrived in the ED, this may be different from the triage time.

Procedure start time:

- Time the surgical procedure commenced in the operating theatre, also known as the Knife to Skin time. ("Surgery start time" in SurgiNet)

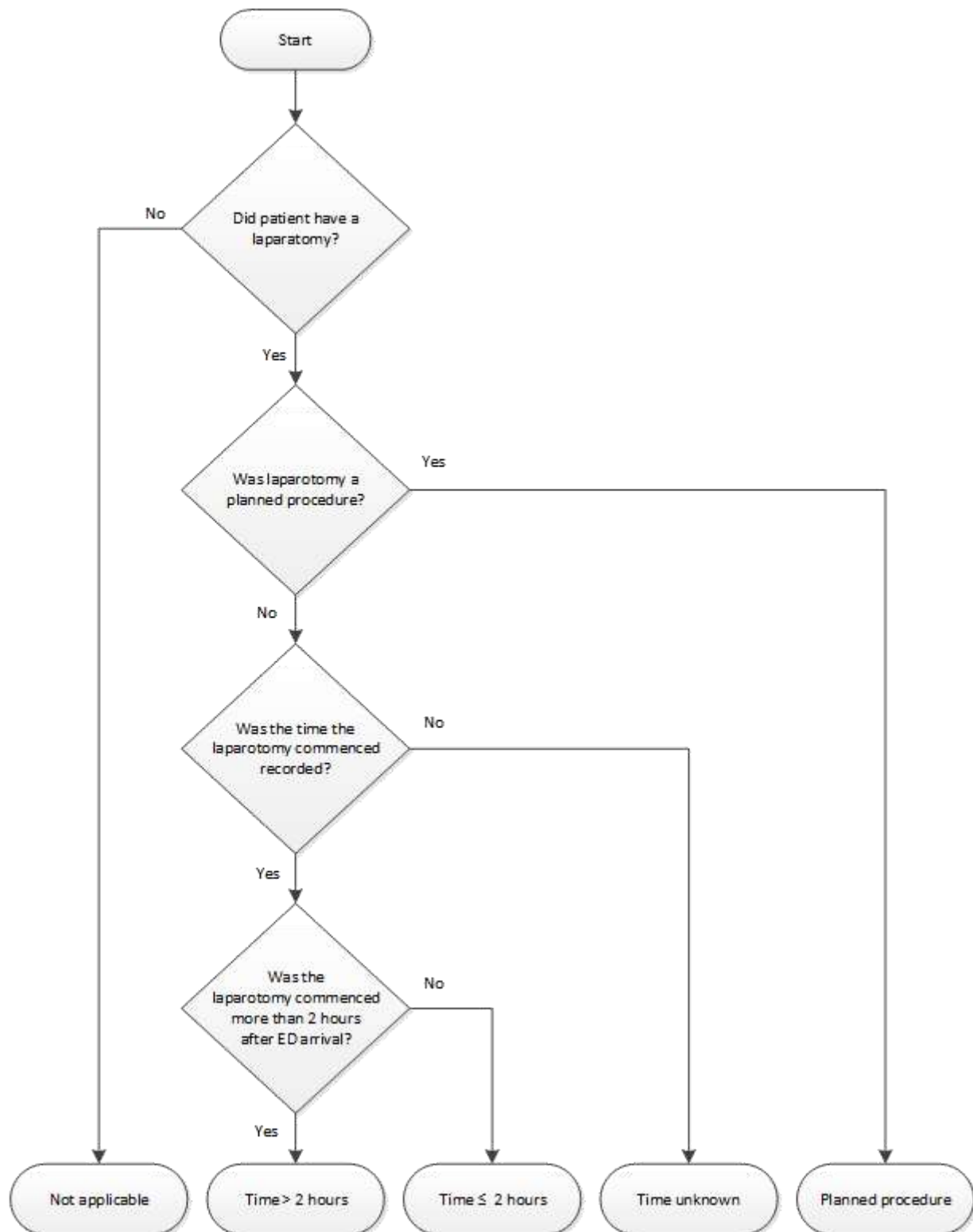
### Calculation

Time to laparotomy is calculated from the date and time the patient arrives in the ED (ED Arrival date and time) to the time the laparotomy procedure commences (Knife to Skin date and time) .

*Knife to Skin date and time – ED Arrival date and time = Time to laparotomy*

*e.g. 01/01/2001 1030hrs – 01/01/2001 0900hrs = 1 hour 30mins*

## Flow Chart



- Workflow processes are provided in the appendix to guide the consistency in collecting and reporting of the process indicators. Please see [Appendix 2](#).

## New Data Elements identified for MDS

Collector Tab Location	Data Element Name	Description	Mandatory Status after implementation	Current Status	Collector Field Name
ED Arrival	Emergency Department/Arrival	ED Arrival: Date <u>and</u> Time	Mandatory	Mandatory	RESUS_EVENT
Procedures	Procedure Start Date and Time	Exploratory Laparotomy (30373-00):  Start ( <i>needle to skin</i> ) Date <u>and</u> Time for Procedure	Conditional	Conditional	PROC_S_EVENT_L

## PI - 3: Time to embolisation

### Background and Rationale

Embolisation is considered as therapeutic introduction of substances into the circulation to occlude vessels to prevent bleeding. Prolonged time between decision in the ED and embolisation may be associated with increased morbidity and mortality (Agolini et al., 1997; Slater & Barron, 2010) and in patients who have abdominal bleeding due to trauma, it is observed that risk of mortality constantly increase up to 90 minutes (Clarke, Trooskin, Doshi, Greenwald, & Mode, 2002). Therefore, urgent embolisation for patients with haemodynamic instability in trauma should occur without delay.

### Definitions

ED Arrival:

- The time the patient arrived at the ED. Note, this may be different from the triage time.

Procedure start time:

- The time the intervention(procedure) commenced. This is also known as the Needle to Skin time.

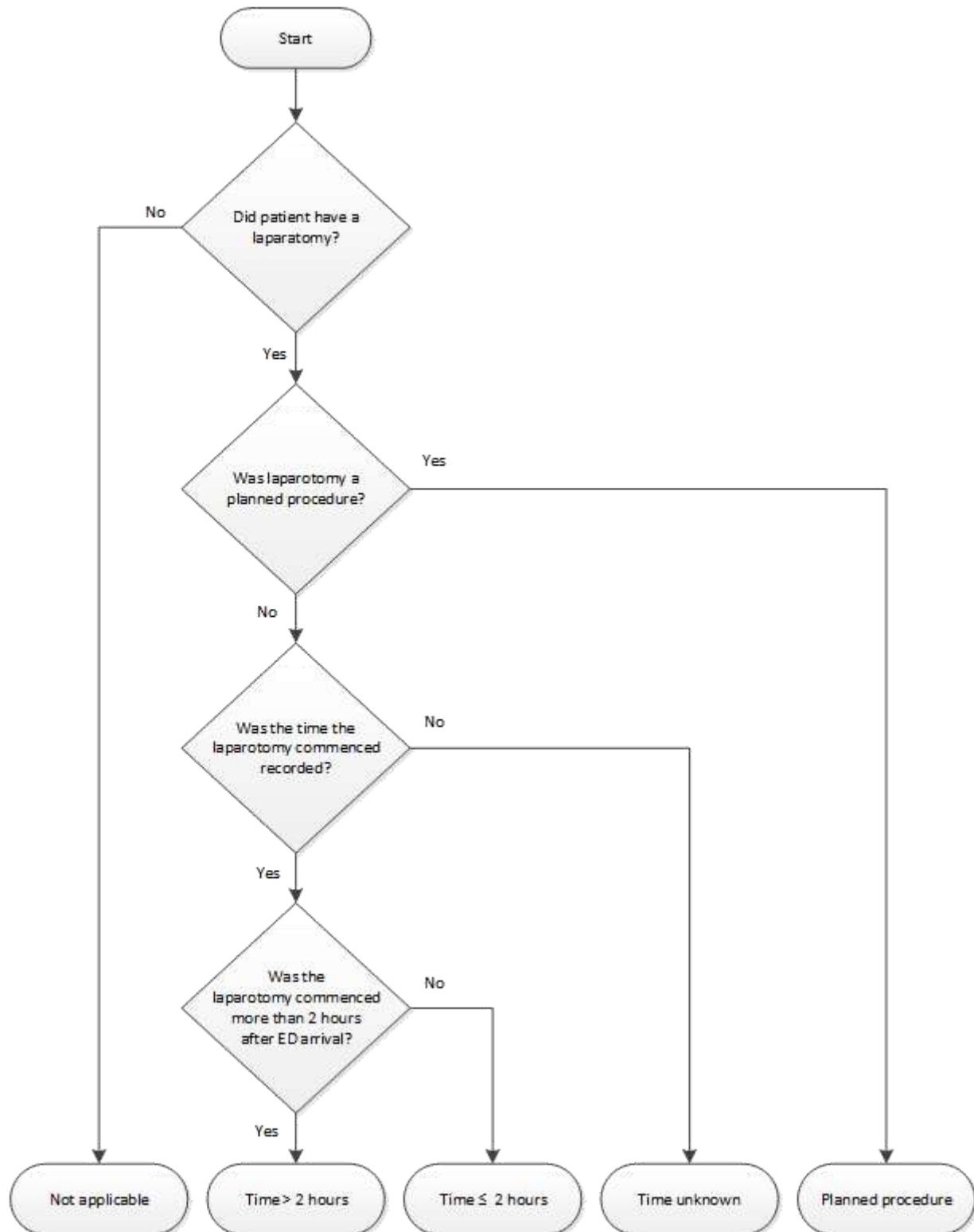
### Calculation

Time to embolisation is calculated from the date and time the patient arrives in the ED (ED Arrival date and time) to the time the embolisation procedure commences (Needle to Skin date and time) .

*Needle to Skin date and time – ED Arrival date and time = Time to embolisation*

*e.g. 01/01/2001 1030hrs – 01/01/2001 0900hrs = 1 hour 30mins*

## Flowchart



- Workflow processes are provided in the appendix to guide the consistency in collecting and reporting of the process indicators. Please see [Appendix 3](#).

## New Data Elements identified for MDS

Collector Tab Location	Data Element Name	Description	Mandatory Status after implementation	Current Status	Collector Field Name
ED Arrival	Emergency Department/Arrival	ED Arrival: Date <u>and</u> Time	Mandatory	Mandatory	RESUS_EVENT
Procedures	Procedure Start Date and Time	Transcatheter Embolisation Blood Vessel (35321-00): Start ( <i>needle to skin</i> ) Date <u>and</u> Time	Conditional	Conditional	PROC_S_EVENT_L



## PI - 4: Unplanned admission to ICU

### Background and Rationale

Unplanned admission to the Intensive Care Unit (ICU) in trauma patients may be associated with increased morbidity and mortality and resource utilisation (Haller, Myles, Langley, Stoelwinder, & McNeil, 2008; Quality of Trauma for Adult Care, 2013; Stelfox et al., 2011; Story et al., 2010). Unplanned admissions to ICU include patients who were transferred to the ward and whose condition subsequently deteriorated requiring prompt admission or re-admission to the ICU.

Examples may include those patients who are:

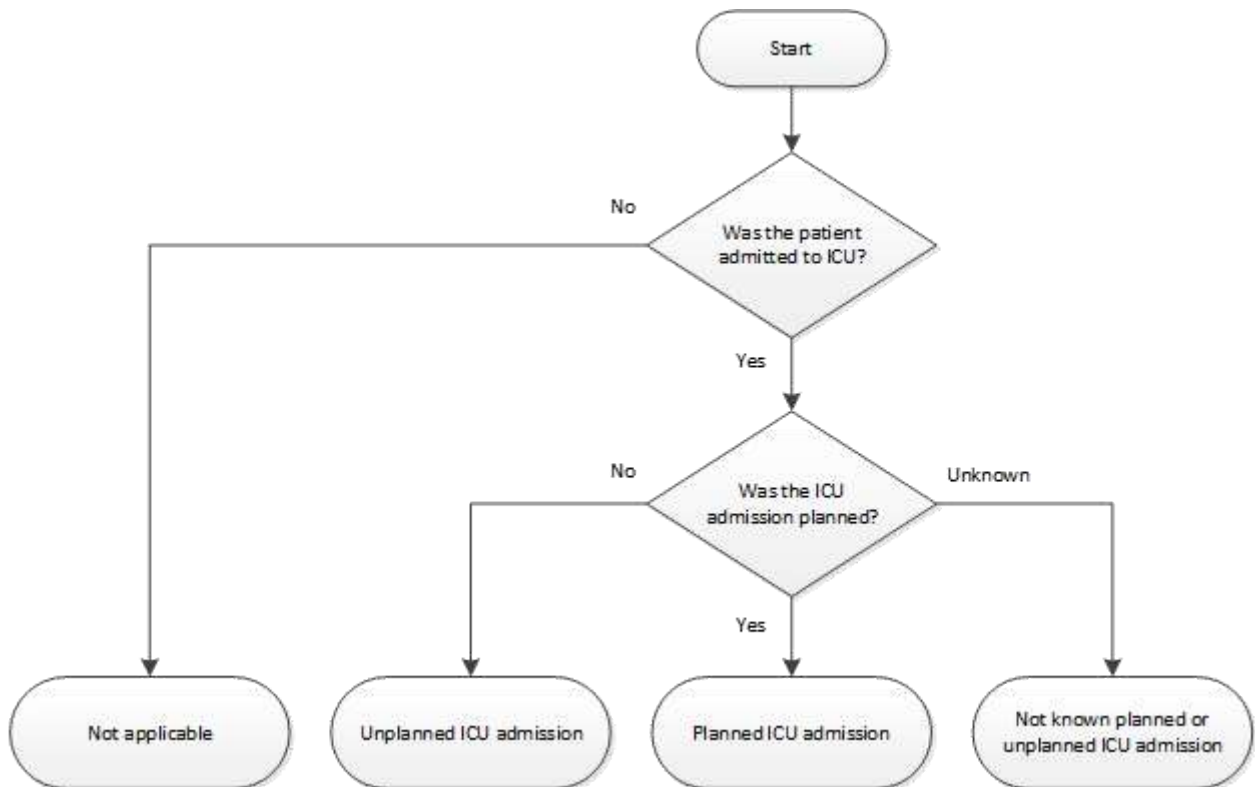
- Transferred from ICU to a ward and back to ICU
- Transferred from ED to a ward and onto ICU
- Transferred from ED to operating theatre with the intention to go to a ward from recovery and are redirected as an ICU admission.

### Definitions

NSW Health definition of ICU:

A bed staffed 24 hours a day that meets the Intensive Care role delineation of level 4 or higher, and used to accommodate patients requiring Intensive Care. Beds classified as Intensive Care beds must be specially staffed and equipped to provide observation, care and treatment to patients with actual or potential life-threatening illnesses, injuries or complications, from which recovery is possible. The bed is serviced by special expertise and facilities for the support of vital functions and utilises the skills of medical, nursing and other staff trained and experienced in the management of these problems.

## Flowchart



- Workflow processes are provided in the appendix to guide the consistency in collecting and reporting of the process indicators. Please see [Appendix 4](#).

## New Data Elements identified for MDS

Collector Tab Location	Data Element Name	Description	Mandatory Status after implementation	Current Status	Collector Field Name
QA >Filters > System	QA Filter Code	'QA' → 'Filters' → 'System Filters', tick 'Unexpected return to OT' or alternatively enter '8506' in 'If Other'	Conditional	Conditional	FLT_CDE_L

## PI - 5: Complications

### Background and Rationale

The development of complications during an admission may be associated with prolonged length of stay and increased morbidity and mortality (Quality of Trauma for Adult Care, 2013).

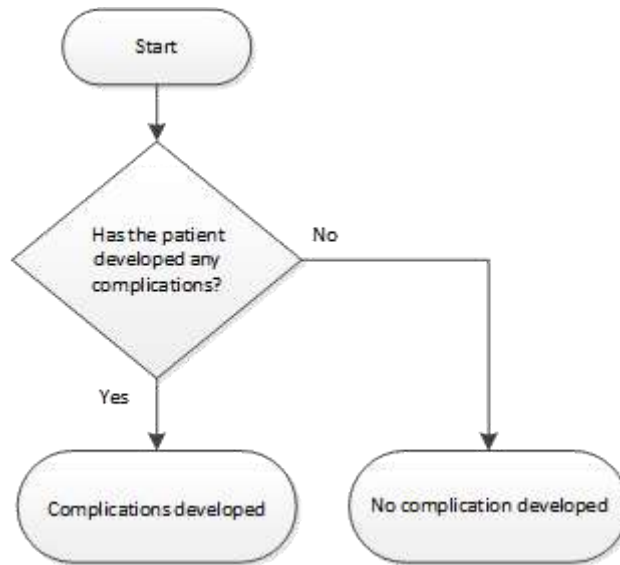
### Definitions

Complications are secondary diseases or conditions aggravating existing ones. Some of the types of complications are listed below: (A comprehensive list is found in [Appendix 5](#))

“A condition, disease, or injury that occurs during the acute care hospital stay which potentially has some negative impact on patient outcome (mortality, disability, prolonged hospitalisation) and results or may result from the health care process (actions or inactions)”(Moore et al., 2015)

Complication	QA_CODE
Esophageal Intubation	2501
Extubation, Unintentional	2502
Aspiration/Pneumonia	3003
Empyema	3005
Fat Embolus	3006
Retained Hemothorax	3007
Pneumonia (Infection)	3008
Pneumothorax (Iatrogenic)	3010
Pulmonary Embolus	3014
Cardiac Arrest	3502
Dehiscence/Evisceration	4003
Splenic Injury (Iatrogenic)	4506
Coagulopathy (Other)	5002
Wound Infection-Cellulitis/Traumatic	5501
Bacteremia	5507
Surgical Wound Infection (Not Orthopedic)	5509
Renal Failure	6001
Urinary Tract Infection (UTI) Early or Late	6003, 6004
Compartment Syndrome	6501
Pressure Ulcer-Stage I - 4	6502, 6503, 6504, 6505
Osteomyelitis	6508
Orthopedic Wound Infection	6509
Rhabdomyolysis	6510
Alcohol/Drug Withdrawal	7001
Deep Vein Thrombosis (DVT), Lower extremity(s)	7502
Anesthetic Complication	8501
Hypothermia	8504
Unexpected Post-Operative Hemorrhage	8508
Managed Care Issue	8510
Referring Facility Complication (Not Prehospital)	8515

## Flowchart



See [Appendix 5](#) for workflow screenshots.

### New Data Elements identified for MDS

Collector Tab Location	Data Element Name	Description	Mandatory Status after implementation	Current Status	Collector Field Name
QA >Filters > System	QA Filter Code	'QA' → 'Filters' → 'System Filters', enter <i>corresponding code</i> in 'If Other'	Conditional	Conditional	FLT_CDE_L

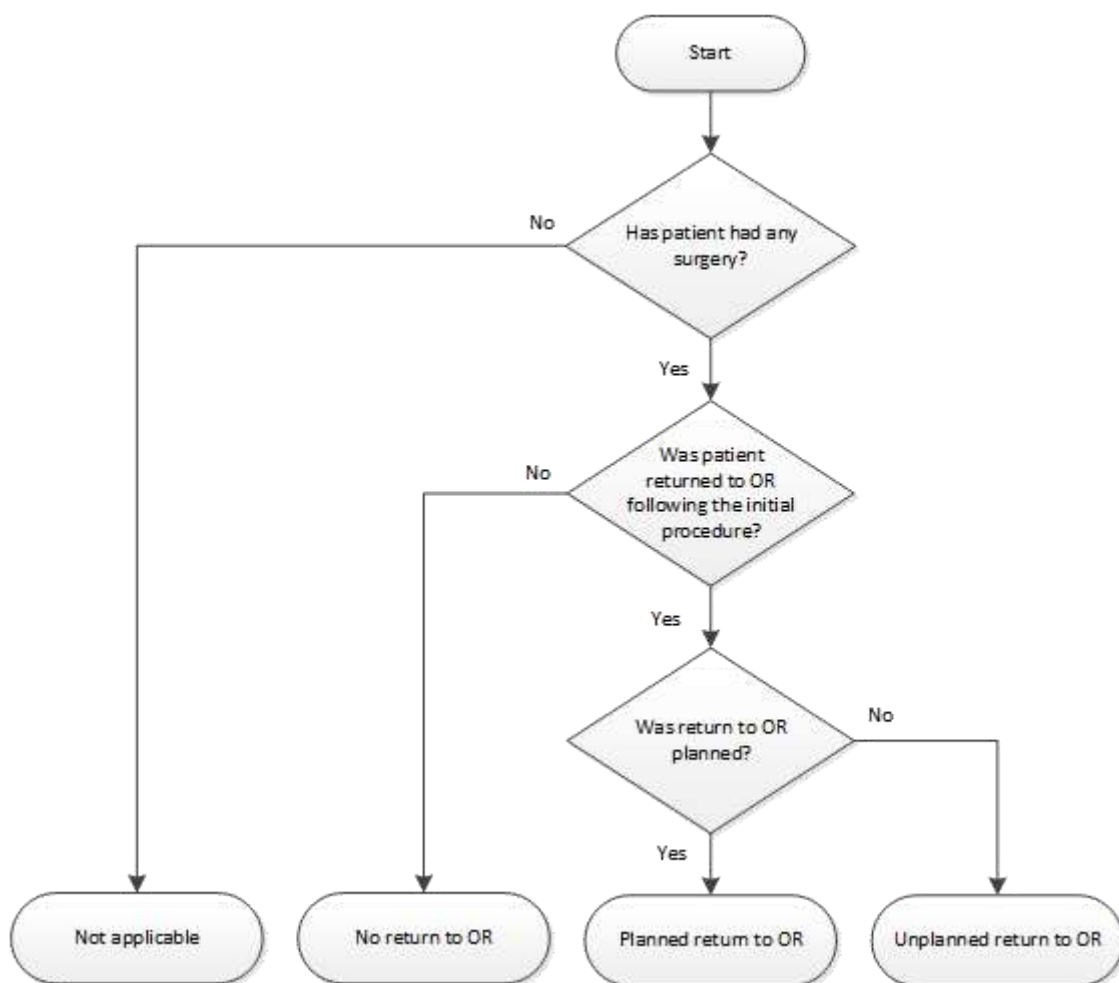
## PI - 6: Unplanned return to the operating room

### Background and Rationale

Unplanned return to the operating room (OR) in trauma patients may be associated with increased morbidity and mortality and resource utilisation (Ansari & Collopy, 1996; Birkmeyer et al., 2001). Unplanned returns to the OR include patients who return for post-operative haemorrhage, unexpected surgery for missed injuries, or unexpected deterioration of condition.

An unplanned return to the OR has significant implications and is a key performance indicator for SurgiNet.

### Flowchart



- Workflow processes are provided in the appendix to guide the consistency in collecting and reporting of the process indicators. Please see [Appendix 6](#).

## New Data Elements identified for MDS

Collector Tab Location	Data Element Name	Description	Mandatory Status after implementation	Current Status	Collector Field Name
QA >Filters > System	QA Filter Code	'QA' → 'Filters' → 'System Filters', tick 'Unexpected return to OR' or alternatively enter '8506' in 'If Other'	Conditional	Conditional	FLT_CDE_L

## PI - 7: Missed injuries

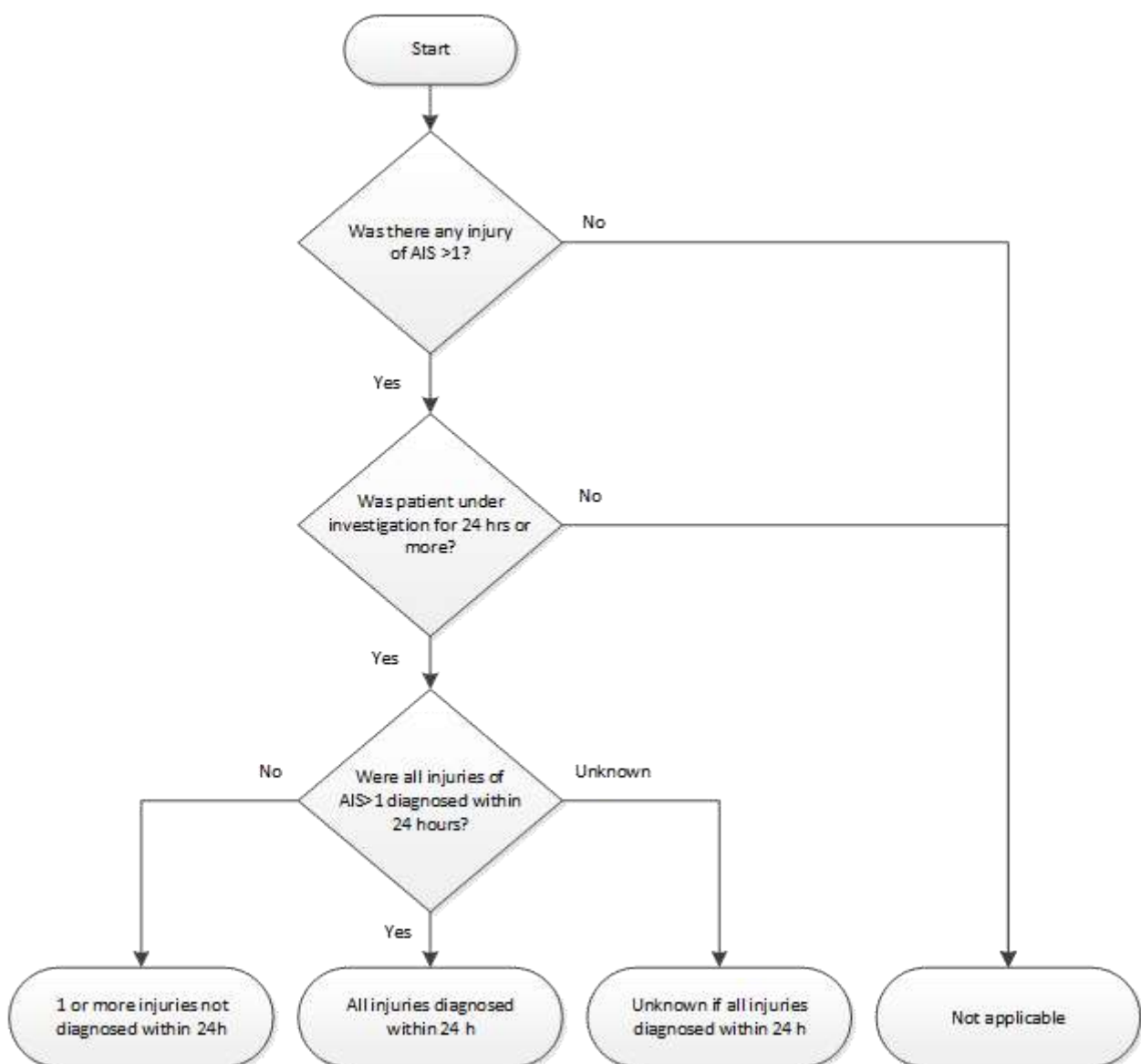
### Background and Rationale

Delayed diagnosis of injuries may be associated with prolonged length of stay and increased morbidity and mortality. Ideally all injuries will be diagnosed during the first 24 hours of care.

### Definition

A missed injury is defined as any injury of AIS >1 that is not diagnosed at the time of the trauma tertiary survey or within 24 hours of ED arrival, whichever comes first. The decision to include AIS >1 has been reached via consensus.

### Flowchart



- Workflow processes are provided in the appendix to guide the consistency in collecting and reporting of the process indicators. Please see [Appendix 7](#).

## New Data Elements identified for MDS

Collector Tab Location	Data Element Name	Description	Mandatory Status after implementation	Current Status	Collector Field Name
QA >Filters > System	QA Filter Code	'On 'QA' → 'Filters' → 'System Filters', tick 'Missed Injuries' or alternatively enter '9007' in 'If Other'	Conditional	Conditional	FLT_CDE_L



## PI - 8: Death review

### Background and Rationale

Trauma Services should conduct a review of all trauma deaths in their facility. The review should determine whether the death was non-preventable, potentially preventable or preventable and recommend corrective actions as required to improve the quality of trauma care.

### Definition:

The following definitions are adapted from McDermott et al (McDermott, Cordner, Cooper, & Winship, 2007) with the addition of Injury Severity Score (ISS) as categorised by the World Health Organisation. (World Health Organization, 2009)

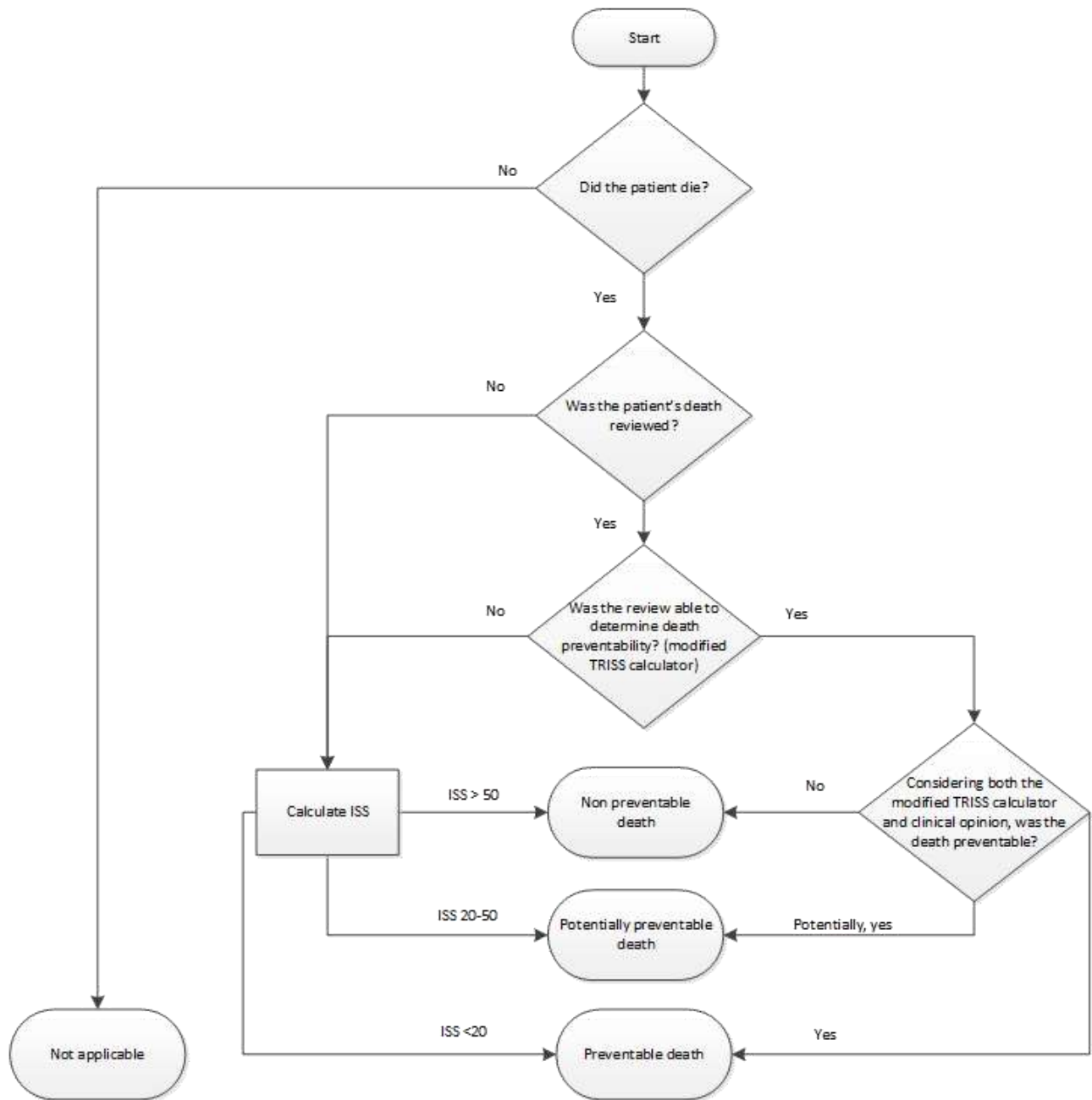
- Clinically preventable trauma death: “With full knowledge of the clinical history and all injuries sustained that the chances of survival would have exceeded 75% with optimal treatment or the ISS is less than 20.”
- Clinically near-preventable trauma death: “With full knowledge of the clinical history and all injuries sustained that the [chances of survival](#) would have been 25-75% had the patient received optimal treatment or the ISS is between 20 and 50.”
- Clinically non-preventable trauma death: “With full knowledge of the clinical history and all injuries sustained that the chances of survival with optimal management would have been less than 25% or the ISS is greater than 50.”

### Categories

- Case reviewed - non-preventable death
- Case reviewed - potentially preventable death
- Case reviewed - preventable death
- Case reviewed - unknown preventability
- Case not reviewed - died
- Not applicable - survived

**Note:** Cases recorded as either “Clinically near-preventable trauma death” or “Clinically preventable trauma death” should be reviewed by the ITIM Clinical Review Committee.

## Flowchart



- Workflow processes are provided in the appendix to guide the consistency in collecting and reporting of the process indicators. Please see [Appendix 8](#).

## New Data Elements identified for MDS

Collector Tab Location	Data Element Name	Description	Mandatory Status after implementation	Current Status	Collector Field Name
QA >Filters > System	QA Filter Code	<p>'On 'QA' → 'Filters' → 'System Filters', tick 'Death Potentially Prevent' or alternatively enter '8550' in 'If Other'</p> <p>On 'QA' → 'Filters' → 'System Filters', tick 'Death - Preventable' or alternatively enter '8530' in 'If Other'</p>	Conditional	Conditional	FLT_CDE_L

## PI - 9: Retrieval team turn-around time

### Background and Rationale

Delays in inter-hospital transfer may be associated with delays to definitive treatment and increased morbidity and mortality. Therefore, patients should be transferred from the referring hospital to the receiving hospital as quickly as possible. Time spent during flight is fixed by the distance travelled, but the time spent by the retrieval team at the referring facility is variable. This time can be reduced by the referring facility making preparations prior to the retrieval team's arrival and also by the retrieval team conducting only necessary investigations and interventions prior to departure whilst ensuring appropriate care and patient safety.

### Definitions

**Arrived at Patient:** The date and time the retrieval team arrived at the patient's bedside at the referring hospital.

**Departed referring hospital:** The date and time the retrieval team depart the referring hospital, as recorded in either the retrieval team casesheet (see [appendix](#) for examples) or as discharge from the referring hospital.

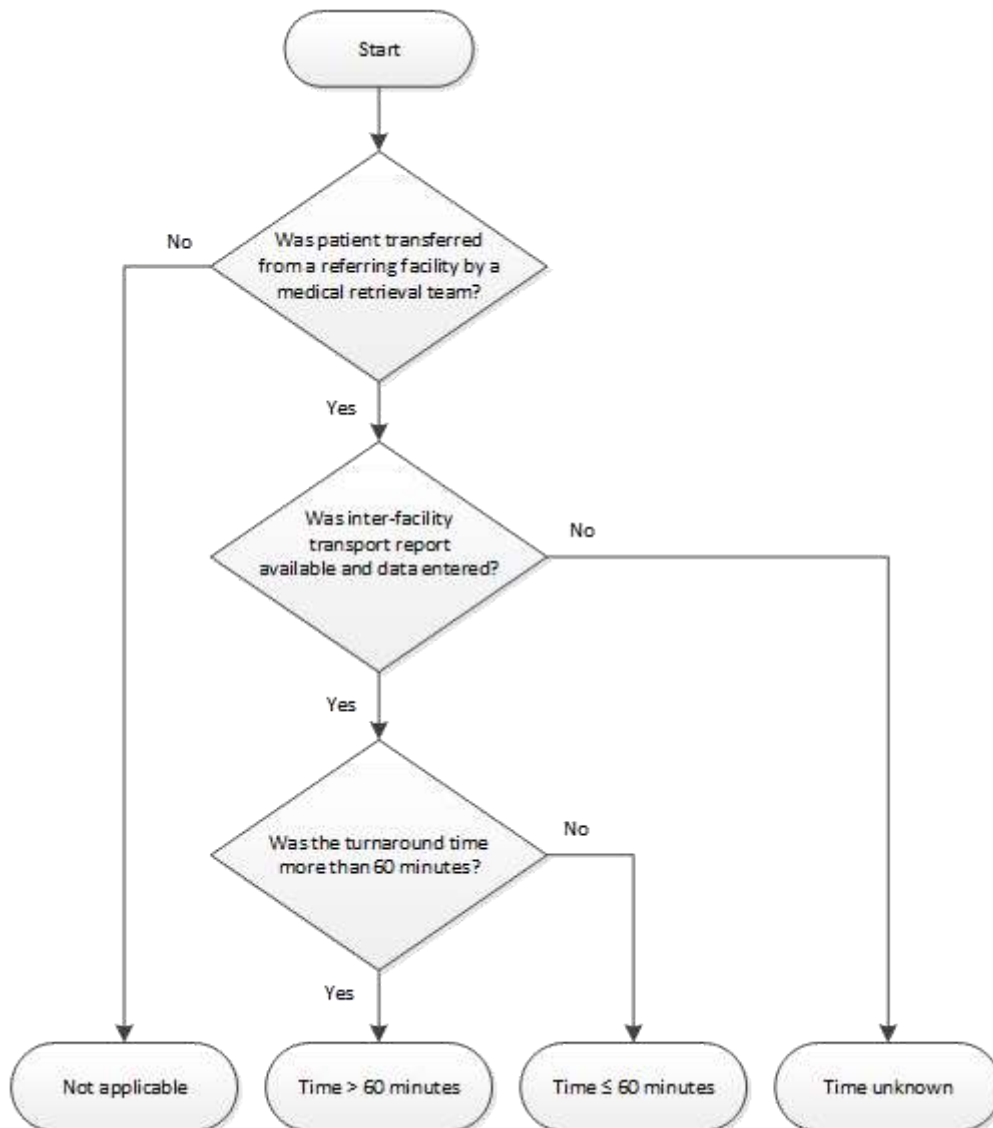
### Calculation

Retrieval team turn around is calculated from the date and time the retrieval team arrives at the patient's bedside at the referring hospital (Arrived at Patient) to the date and time they leave the referring hospital (Departed Referring).

*Departed Referring – Arrived at Patient = Retrieval Team Turn Around time*

*e.g. 01/01/2001 1200hrs – 01/01/2001 1030hrs = 1 hour 30mins*

## Flowchart



- [Workflow processes are provided in the appendix to guide the consistency in collecting and reporting of the process indicators. Please see Appendix 9.](#)

## Comments

Where prolonged turnaround times are recorded it is suggested that these be trended by the month recorded in periodic reports to a local committee. Where prolonged turnaround times impact clinical outcomes, these cases are suggested to be reviewed by CRC and local review processes.

## New Data Elements identified for MDS

Collector Tab Location	Data Element Name	Description	Mandatory Status after implementation	Current Status	Collector Field Name
ED Arrival	Emergency Department/Arrival	ED Arrival: Date <u>and</u> Time	Mandatory	Mandatory	RESUS_EVENT
Demographic > Patient	System Access	* <i>System Access: Transfer from another acute care facility</i>	Mandatory	Mandatory	ENTRY_SYSTEM
Inter-facility Transport	Inter-facility Transport Agency	Inter-Facility Transport – Agency (1 and 2)	Conditional	Conditional	IT_AG_ID_L IT2_A_ID_L
Inter-facility Transport	Inter-facility Transport Mode	Inter-Facility Transport Mode (1 and 2)	Conditional	Conditional	IT_MODE IT2_MODE
Inter-facility Transport	Arrived at Patient Date and Time	* Inter-facility Transport - Arrived at Patient: Date <u>and</u> Time	Conditional	Conditional	IT_PT_EVENT IT2_PT_EVENT

## PI - 10: Medical retrieval notification time

### Background and Rationale

Delays to secondary or tertiary referrals may be associated with delays to definitive care and increased morbidity and mortality. Therefore, referral for patients requiring secondary or tertiary transfer should occur as quickly as possible. Prolonged time before making a retrieval notification contributes to the delay to definitive care. This indicator measures the length of time from arrival at the referring facility ED to first notification of the medical retrieval service (Quality of Trauma for Adult Care, 2013; Stelfox et al., 2011).

### Definitions

Arrived at referring facility: The date and time the patient arrived at the referring facility ED.

Medical retrieval service notified: The time the medical retrieval service was first contacted regarding the need to transfer the patient.

### Calculation

Medical retrieval notification time is calculated from the date and time the patient arrived in the ED at the referring facility (Referral ED Arrival time) to the date and time first contact is made with the medical retrieval service (Retrieval Contact time) regarding transfer of the patient. Retrieval contact time may be obtained from hospital medical notes or retrieval team case sheets (see [appendix](#) for examples)

Retrieval Contact time - Referral ED Arrival time = Medical Retrieval Notification time

*e.g. 01/01/2001 1200hrs – 01/01/2001 1135hrs = 25 minutes*

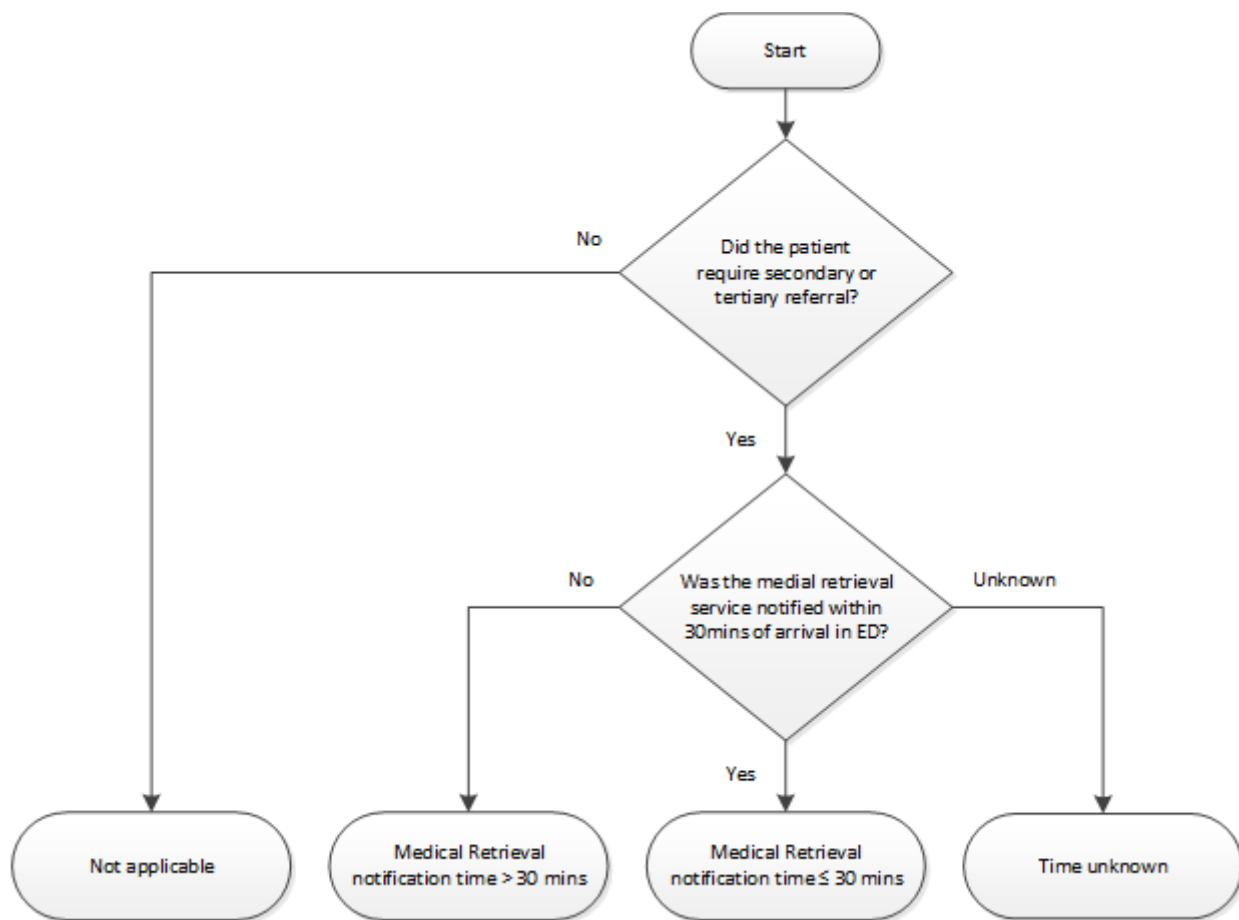
### Categories

- Medical Retrieval notification time > 30 mins
- Medical Retrieval notification time ≤ 30 mins
- Not applicable (Use if patient did not require secondary or tertiary referral)
- Unknown Time of Medical Retrieval notification

### Comments

It is acknowledged that this time, whilst it may not be entirely precise, will provide information to highlight significant extended notification timeframes within the system. Where prolonged notification times are recorded it is suggested that these be trended by the month and recorded in periodic reports to a local committee. Where prolonged notification times impact clinical outcomes, these cases are suggested to be reviewed by ITIM CRC and local review processes.

## Flowchart



- Workflow processes are provided in the appendix to guide the consistency in collecting and reporting of the process indicators. Please see [Appendix 10](#).



## New Data Elements identified for MDS

Collector Tab Location	Data Element Name	Description	Mandatory Status after implementation	Current Status	Collector Field Name
Ref Facility 1 Or Ref Facility 2	Referring Facility Name (1)  Referring Facility Name (2)	Referring Facility(1)  Referring Facility(2)	Conditional	Conditional	RF_HOSP RF2_HOSP
Ref Facility 1 Or Ref Facility 2	Referring Facility Arrival: Date <u>and</u> Time  Referring Facility 2 Arrival: Date <u>and</u> Time	Referring Facility Arrival: Date <u>and</u> Time  Referring Facility 2 Arrival: Date <u>and</u> Time	Conditional	Conditional	RF_A_EVENT  RF2_A_EVENT
ED Arrival	Emergency Department/Arrival	ED Arrival: Date <u>and</u> Time	Mandatory	Mandatory	RESUS_EVENT
Ref Facility 1 Or Ref Facility 2	Inter-facility Transport Agency (1) – Call Received Date and Time  Inter-facility Transport Agency (2) – Call Received Date and Time	Date and Time when the Transport Agency(1) received the call  Date and Time when the Transport Agency(2) received the call	Conditional	Not in MDS	IT_C_EVENT  IT2_C_EVENT

## PI - 11: Intubation in ED with GCS <9 in head injury

### Background and Rationale

Delayed time to intubation in ED for patients with a GCS < 9 with a head injury may be associated with increased morbidity & mortality (Murray et al., 2000; Winchell & Hoyt, 1997). Therefore, patients should be intubated as soon as possible for airway protection and to assist in prevention of secondary brain injury.

### Categories

- GCS < 9 and intubated > 20 mins after arrival in ED
- GCS < 9 and intubated ≤ 20 mins after arrival in ED
- GCS < 9 but not intubated in ED
- Not applicable (Use if patient's GCS ≥ 9 on arrival to ED)
- GCS < 9 and intubated in ED but unknown time

### Definition

Head injury is defined as a patient presenting to hospital following acute blunt or penetrating head trauma with or without a definite history of loss of consciousness or post traumatic amnesia. In this context, an initial GCS < 9 is an indicator of severe head injury.

Intubation is the placement of a definitive artificial airway in the trachea such as an endotracheal or nasotracheal tube.

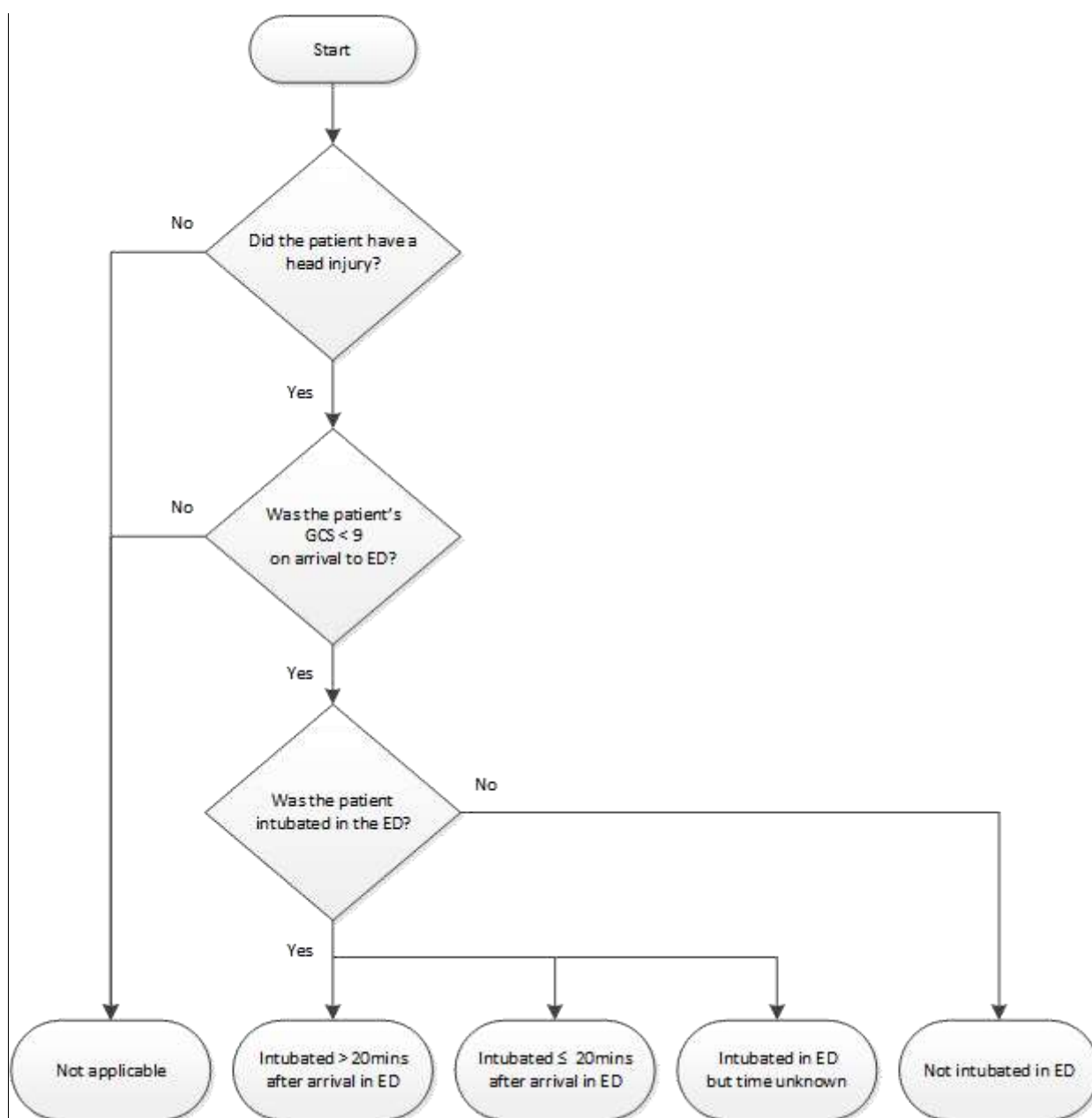
### Calculation

Time to intubation is calculated from the time the patient arrives in the ED (Arrival in ED time) to the time intubation is successfully completed and ventilation is commenced in the ED (Ventilation start time).

Ventilation start date and time – Arrival in ED date and time = *Time to intubation*

*e.g. 01/01/2001 1200hrs – 01/01/2001 1150hrs = 10mins*

## Flowchart



- Workflow processes are provided in the appendix to guide the consistency in collecting and reporting of the process indicators. Please see [Appendix 11](#).

## New Data Elements identified for MDS

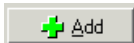
Collector Tab Location	Data Element Name	Description	Mandatory Status after implementation	Current Status	Collector Field Name
ED Arrival	Emergency Department/Arrival	ED Arrival: Date <u>and</u> Time	Mandatory	Mandatory	RESUS_EVENT
Initial ED Vitals	GCS Total	GCS (Glasgow Coma Scale/Score) – Total – The sum of the patient's Eye opening, Verbal response, and Motor response Scores.	Mandatory	Mandatory	GCS_A_L
Diagnoses>Coding	Diagnoses	AIS Code	Mandatory	Mandatory	PREDOTS_RPT_L
Patient Tracking	Ventilator Tracking -- Start and Stop Date/Time	Ventilator Tracking – Start and Stop Date/Time	Conditional	Conditional	VT_A_EVENT_L
Diagnoses>Coding	AIS Severity Level	AIS Severity Level	Mandatory	Mandatory	AIS_SEV_L
Diagnoses>Coding	AIS Body Region	AIS Body Region	Mandatory	Mandatory	AIS_BR

## Appendix 1: P1 - 1 workflow

### Collector workflow

1. Click on Prehosp tab
2. Click on the Add button next to the Scene/Transport Providers section

The screenshot shows the 'Trauma Data Editor' window with the 'Prehosp' tab selected. A red box highlights the 'Walk-in' and 'Was patient extricated?' checkboxes, with a red arrow pointing to them and the text 'Fill in the info'. The 'Add' button next to the 'Scene/Transport Providers' table is also highlighted with a red circle.



3. Clicking on Add button opens the following screen.

The screenshot shows the 'Scene/Transport Providers' form. The form contains fields for Agency, Unit Number, Role, Mode, If Other, Trauma Notification, Run Number, Dispatch Number, Care Level, Report Available, and a list of time points for the call (Call Received, Call Dispatched, En Route, Arrived at Location, Arrived at Patient, Left Location, Arrived at Destination, Intercept Location).

4. Ensure that you have filled the Mandatory fields as shown below

The screenshot shows the 'Scene/Transport Providers' form with the following fields highlighted by red boxes:

- Agency: AMRS
- Unit Number: 12
- Mode: Ambulance
- Arrived at Patient: 01/12/2016 10:37
- Left Location: 01/12/2016 10:58

Other visible fields include: Role, If Other, Trauma Notification, Run Number, Dispatch Number, Care Level, Report Available, Call Received, Call Dispatched, En Route, Arrived at Location, Arrived at Destination, and Intercept Location.

Mandatory fields  
Agency  
Mode  
Arrived at Patient date/time  
Left Location date/time

If you Edit an existing record by clicking on the Edit button, then the same screen opens up (same screen when you clicked on add to record the information as above)



5. Ensure that after editing, the mandatory fields are still filled in

The screenshot shows the 'Scene/Transport Providers' form after editing, with the same mandatory fields highlighted by red boxes as in the previous screenshot:

- Agency: AMRS
- Unit Number: 12
- Mode: Ambulance
- Arrived at Patient: 01/12/2016 10:37
- Left Location: 01/12/2016 10:58

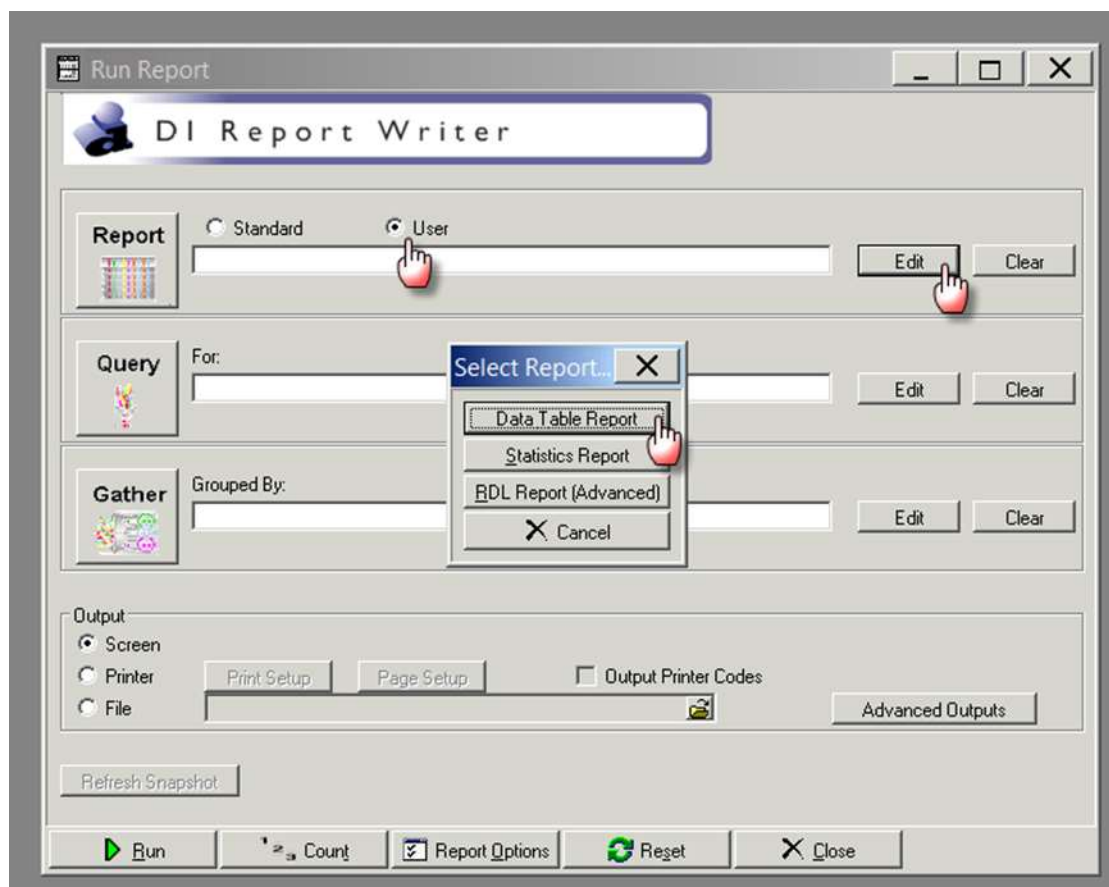
Other visible fields include: Role, If Other, Trauma Notification, Run Number, Dispatch Number, Care Level, Report Available, Call Received, Call Dispatched, En Route, Arrived at Location, Arrived at Destination, and Intercept Location.

Mandatory fields  
Agency  
Mode  
Arrived at Patient date/time  
Left Location date/time

## Report Writer workflow

### Data table report

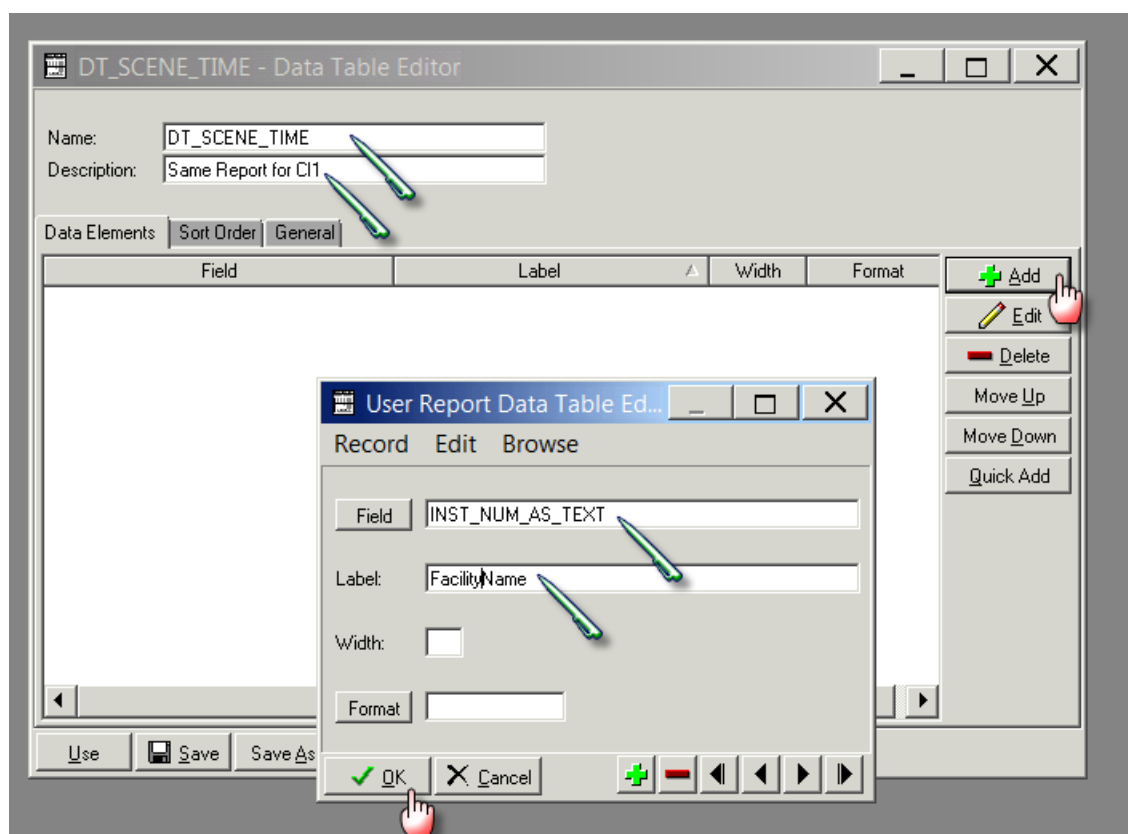
1. Open Report Writer.
2. Click on Report
3. Select User radio button and Click on Edit
4. A popup screen opens up( as shown in the screenshot)
5. Click on Data Table Report button in this popup screen



6. After you click Data Table Report ( in step 5) the following screen appears
7. Fill in the Name and Description fields as shown in the screenshot
8. A popup screen opens up which allows you to add Fields in your report
9. Select the Name field and enter process indicator name DT\_SCENE\_TIME
10. Select the description field and enter Scene Time
11. Select add
12. Enter the first the Field Name, description and format per table below
13. Select the green “+” button

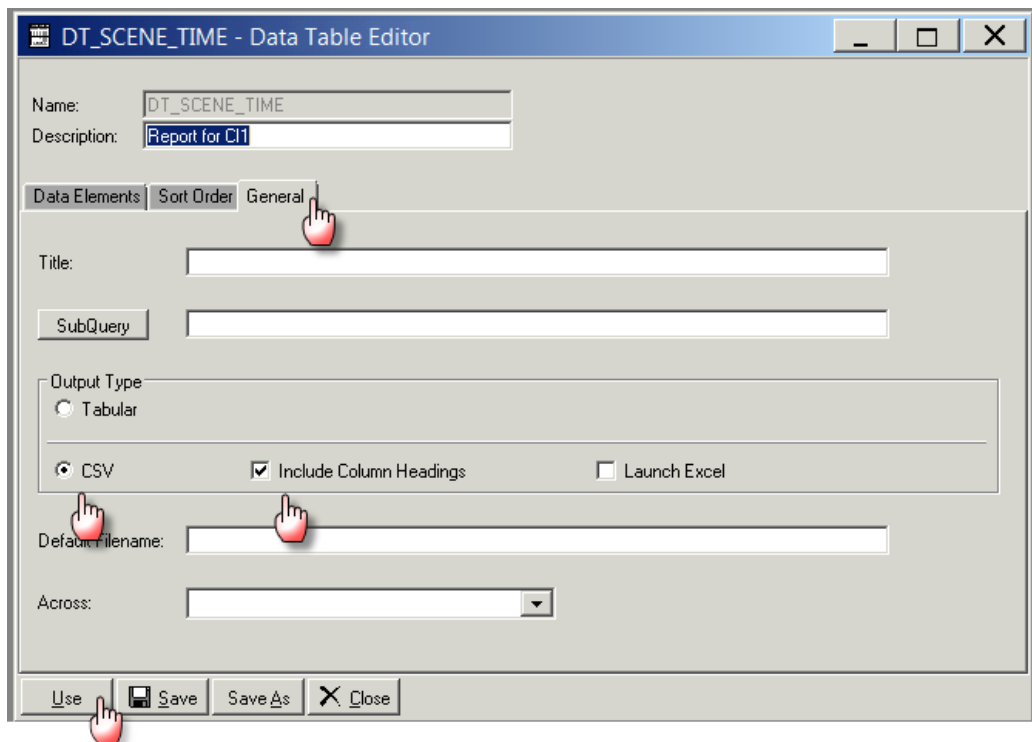
14. Repeat steps 12 and 13 adding the fields and their labels from the following table:

Field	Label	Width	Format
INST_NUM	Facility Number		
INST_NUM_AS_TEXT	Facility Name		
EDA_EVENT	Facility Arrival_Y4	20	D0E1Z0
AGE_RPT	Age		
E_CODE_1_AS_TEXT	Mechanism		
ISS_RPT	ISS		
DIS_STS_RPT_AS_TEXT	Outcome		
MINUS(A_PH_L_EVENT,A_PH_PT_EVENT	Scene Time		
PH_PT_TM_L	Arrived at Patient		
PH_A_ID_L_AS_TEXT	Transport Agency		
PH_EXT_YN	Was Patient Extracted		





15. Click on General tab and click CSV option and also select Include Column Headings tickbox



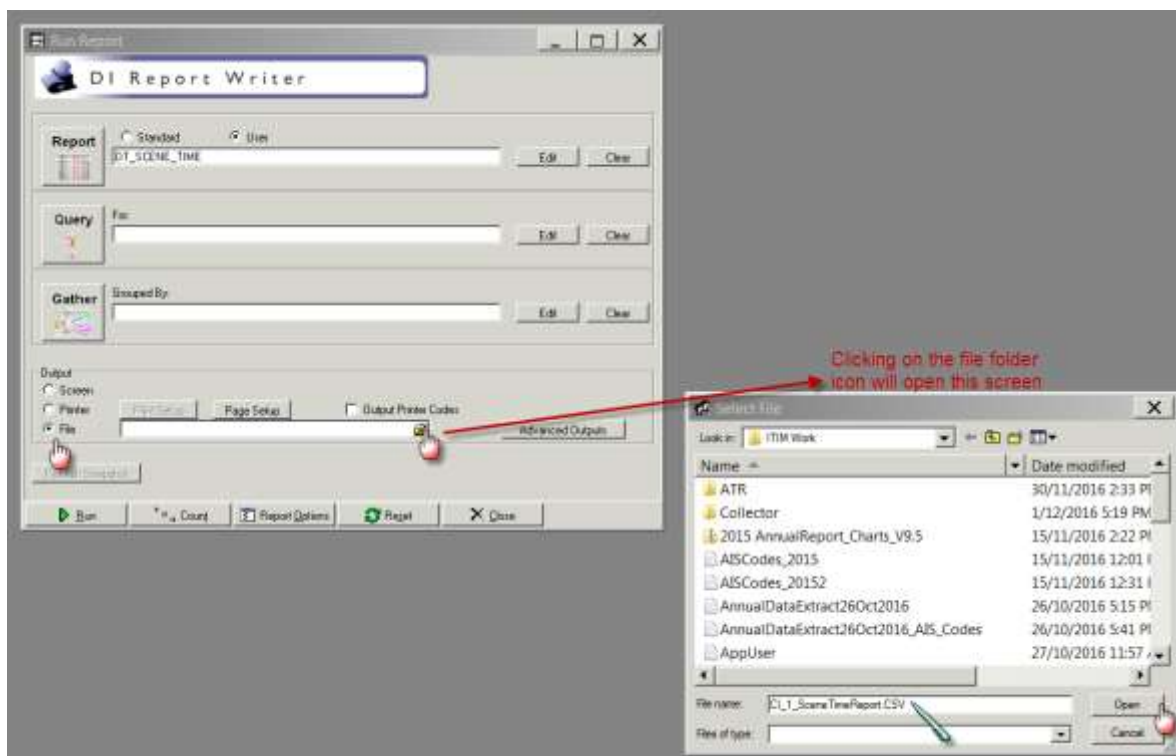
16. Click on Use which will close this screen

17. Click on the File radio button in Output section

18. Click on the File Folder button will open the “Select File” screen

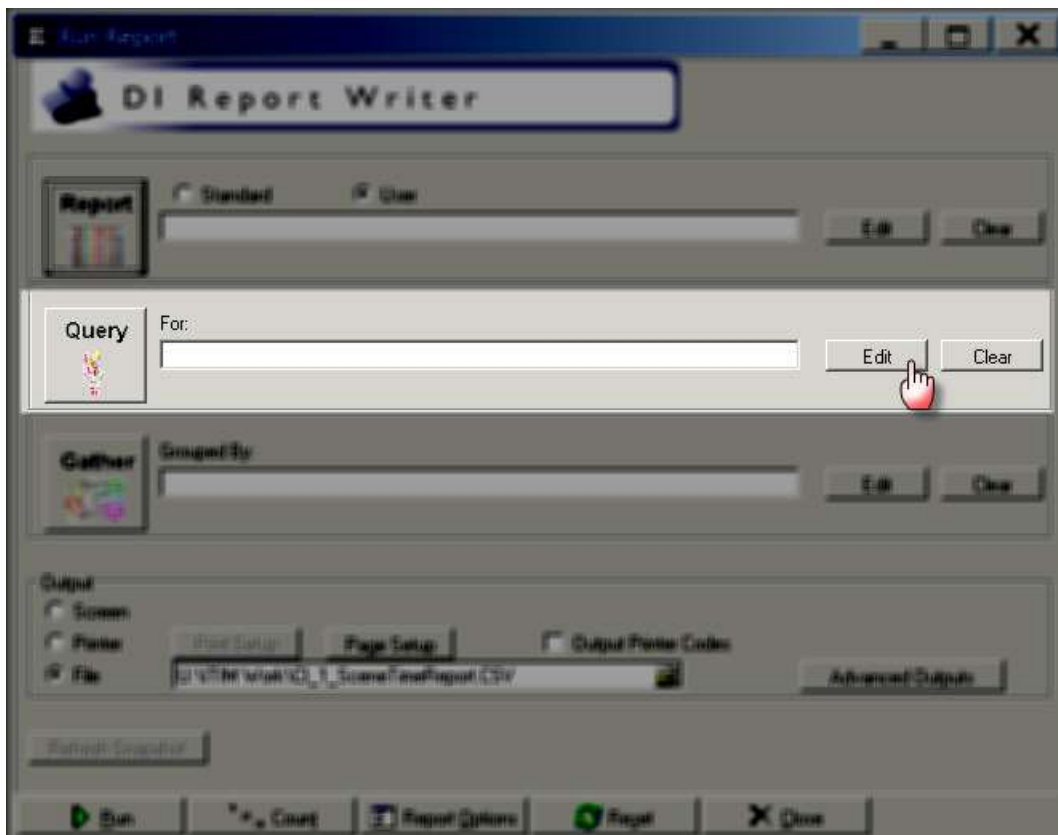
19. Provide the file name ( also put a .CSV) at the end of file name

20. Click on Open and the “Select File” screen will close and the name of the file will appear in the “Run Report” screen

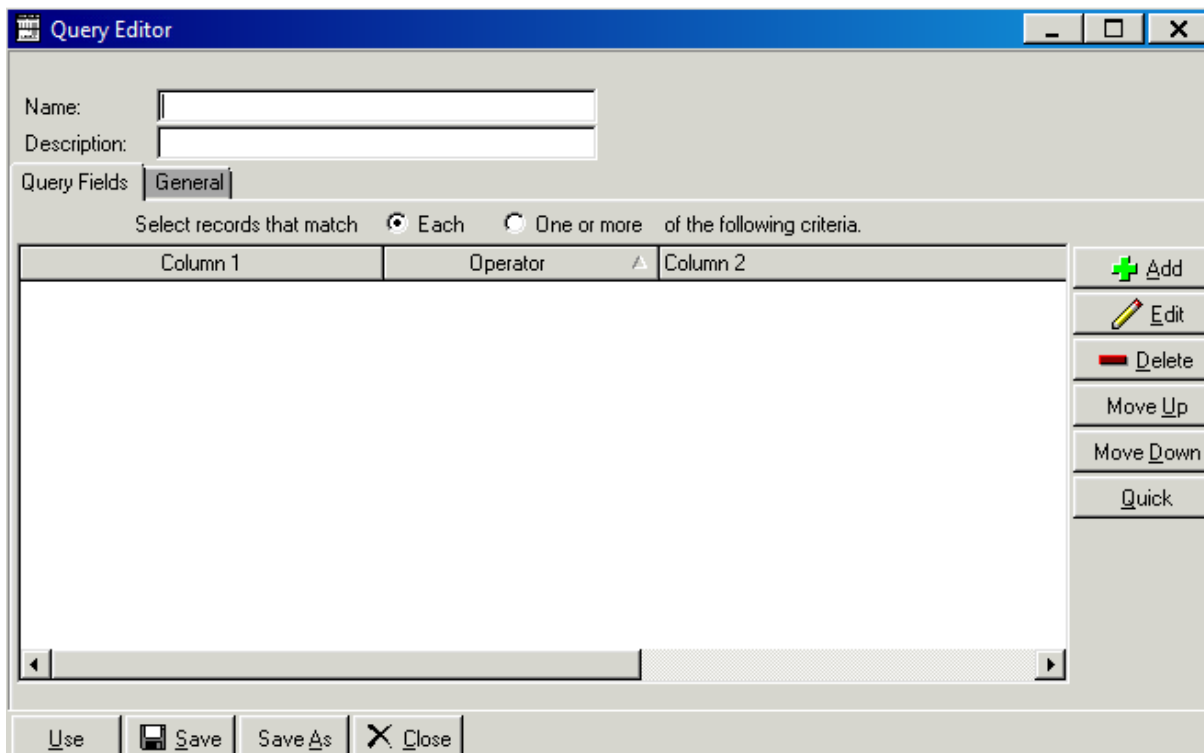


## Query

1. Select Query edit button on the main screen on Report Writer



2. Clicking the Query edit button opens the following screen



3. Select the Name field and enter process indicator name Q\_SCENETIME\_GT\_20

4. Select the description field and enter the description Scene Time for CI1
5. Click the Add button on the right hand side of the screen



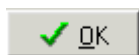
6. Clicking on add button opens the following screen

7. Enter the first query field into Column 1, Operator and Column 2 as per table below
8. Select the green “+” button
9. Repeat steps 7 and 8 adding the fields and their labels from the following table:

Column 1	Operator	Column 2
ISS_RPT	>	12
MINUS(A_PH_L_EVENT,A_PH_PT_EVENT)	>	20

10. The final query will look like this. Once done click on save button.

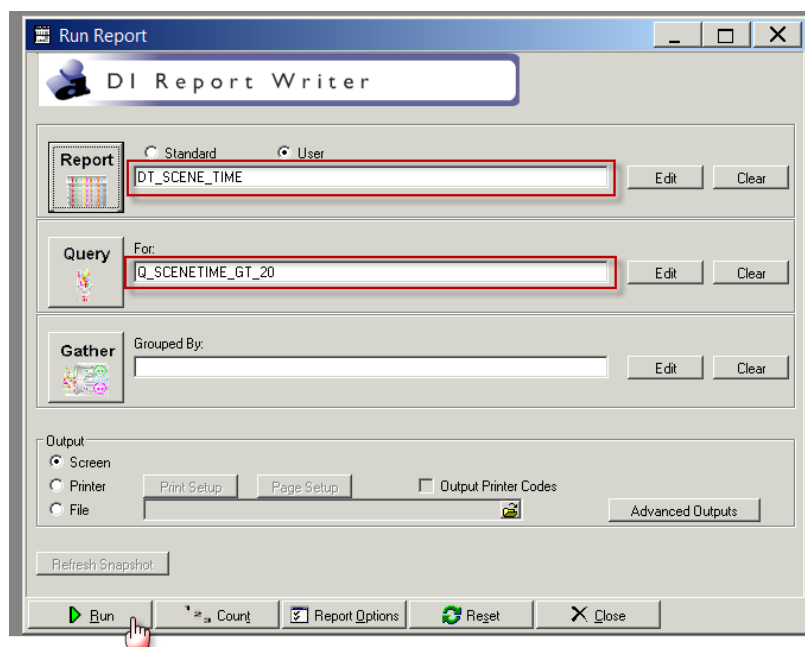
11. Once complete select ok



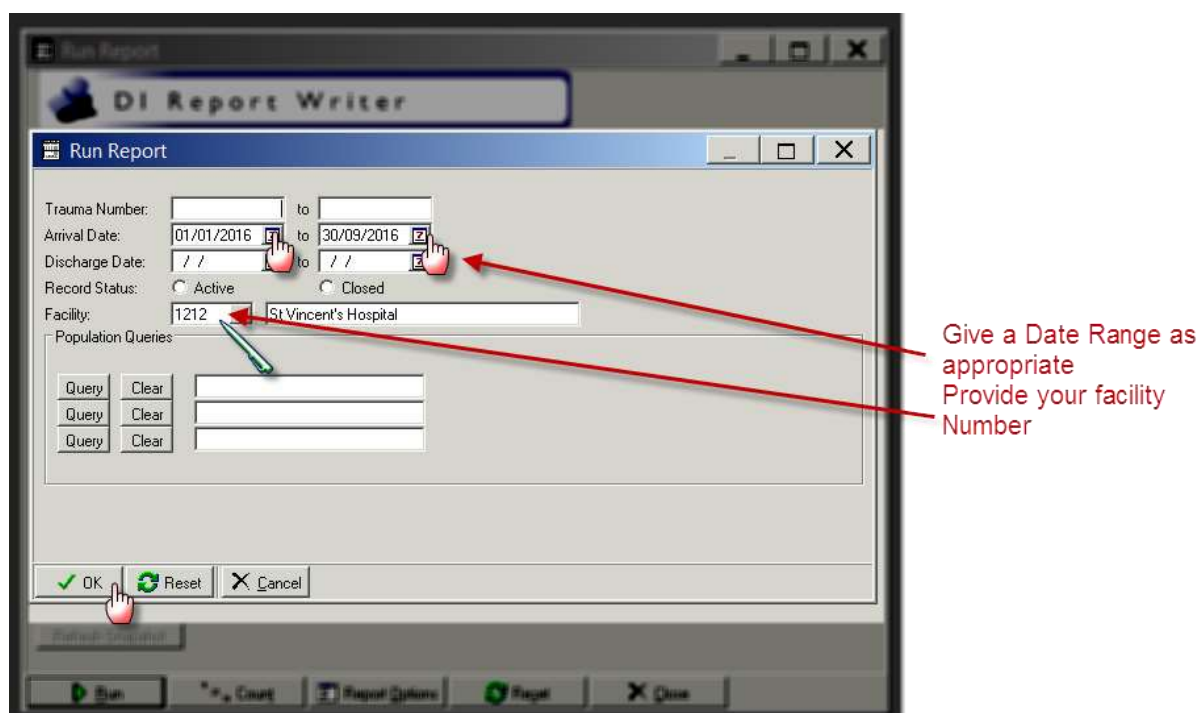
12. Click Save

13. Click on Use which will close this screen

14. Once the report and the query has been filled in, click on Run to run the report



15. The following screen will popup where you can set the filters for your report as shown below.



16. Click on OK and the following screen will popup and a CSV file will be created.

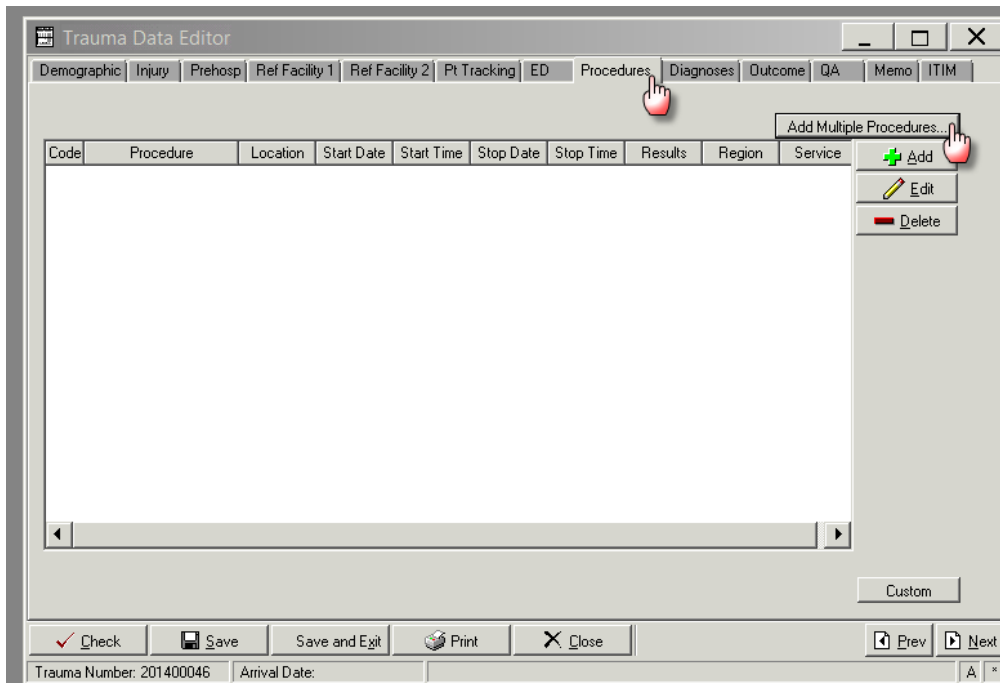


A CSV file will be saved in the location you have specified.

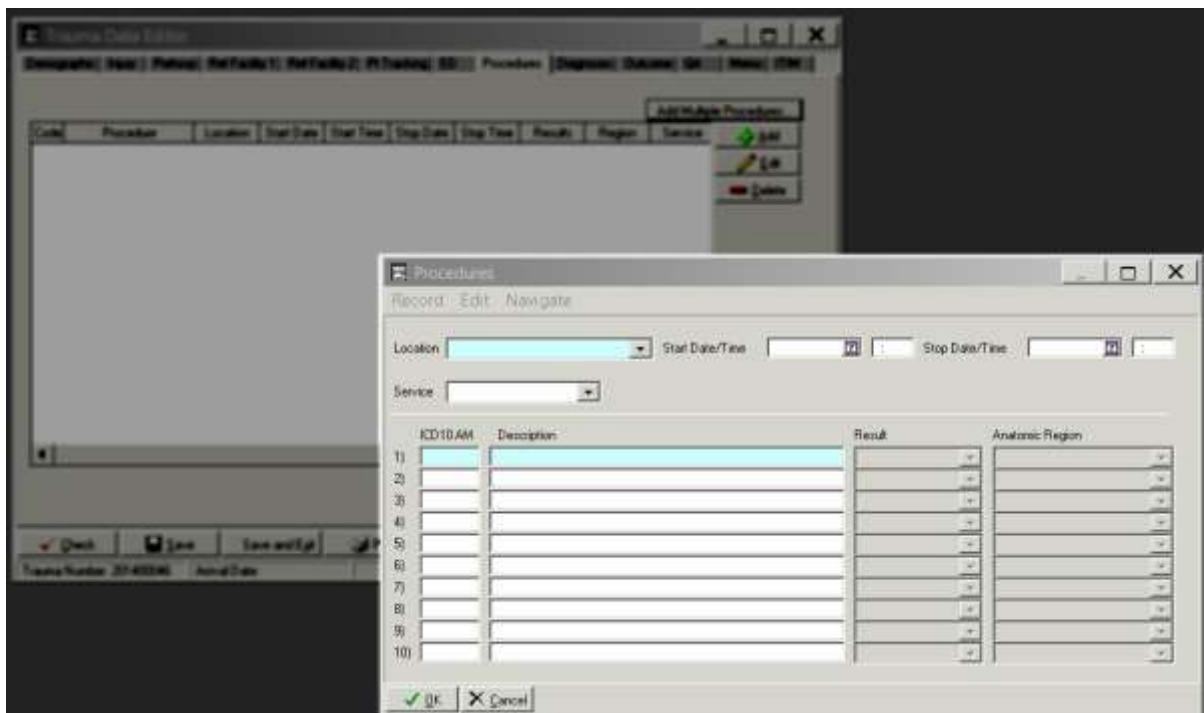
## Appendix 2: PI - 2 workflow

### Collector workflow

1. Go to Procedures and click on Add Multiple Procedures button



2. Following screen will popup.



### 3. Fill in the details

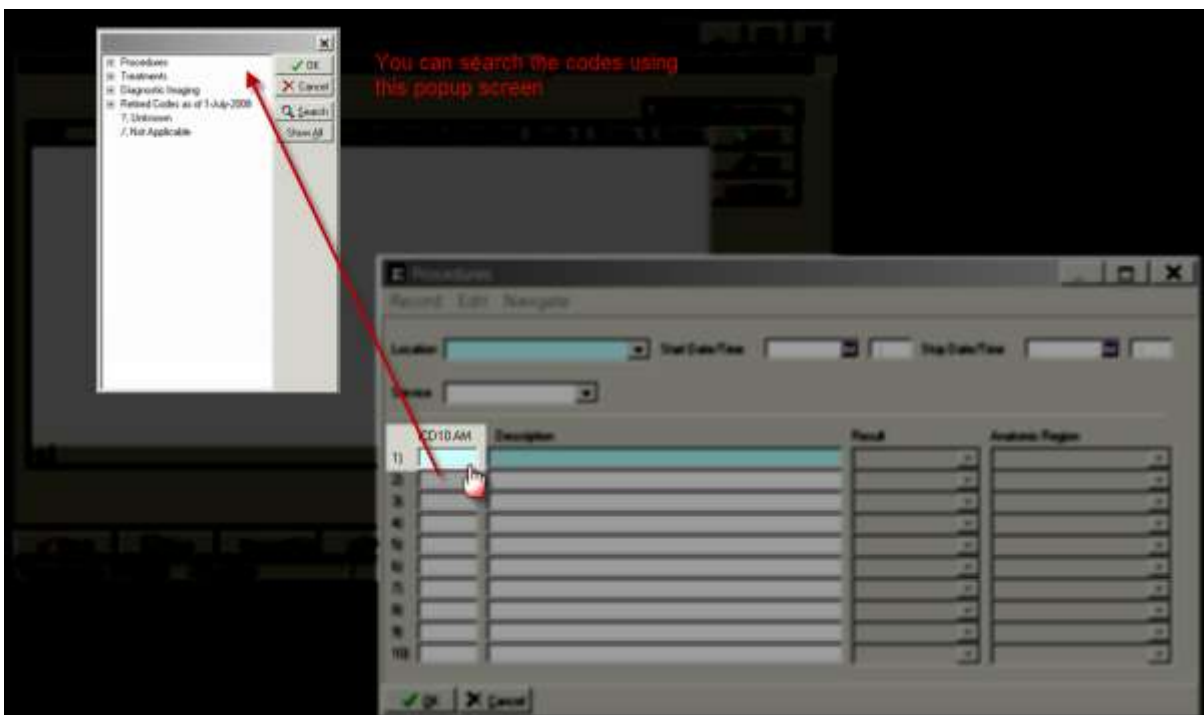
**Procedures**

Record Edit Navigate

Location:  Start Date/Time:   Stop Date/Time:

Service:

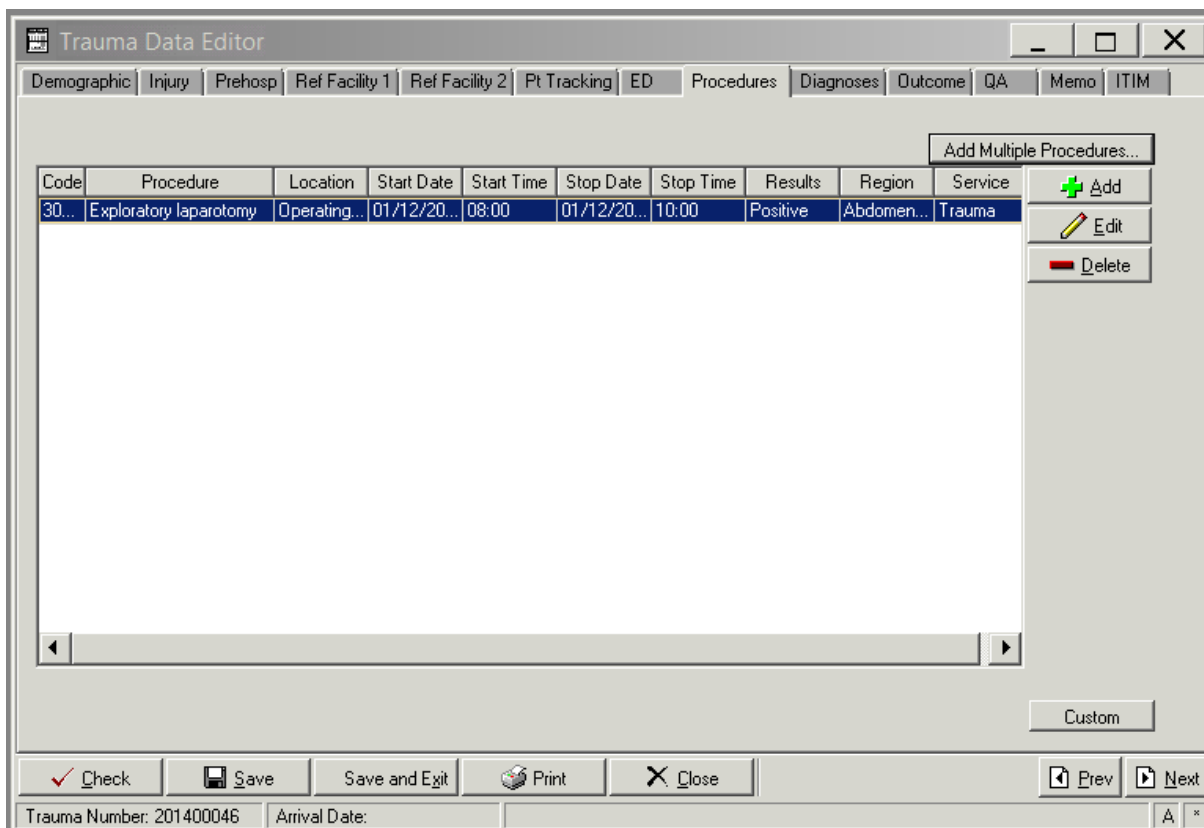
	ICD10 AM	Description	Result	Anatomic Region
1)	30373-00	Exploratory laparotomy	Positive	Abdomen & Pelvic Contents
2)				
3)				
4)				
5)				
6)				
7)				
8)				
9)				
10)				



4. Click on OK in the Procedures screen and then click on Save in the Trauma Data Editor screen as shown below



5. Saved procedure will show up as below

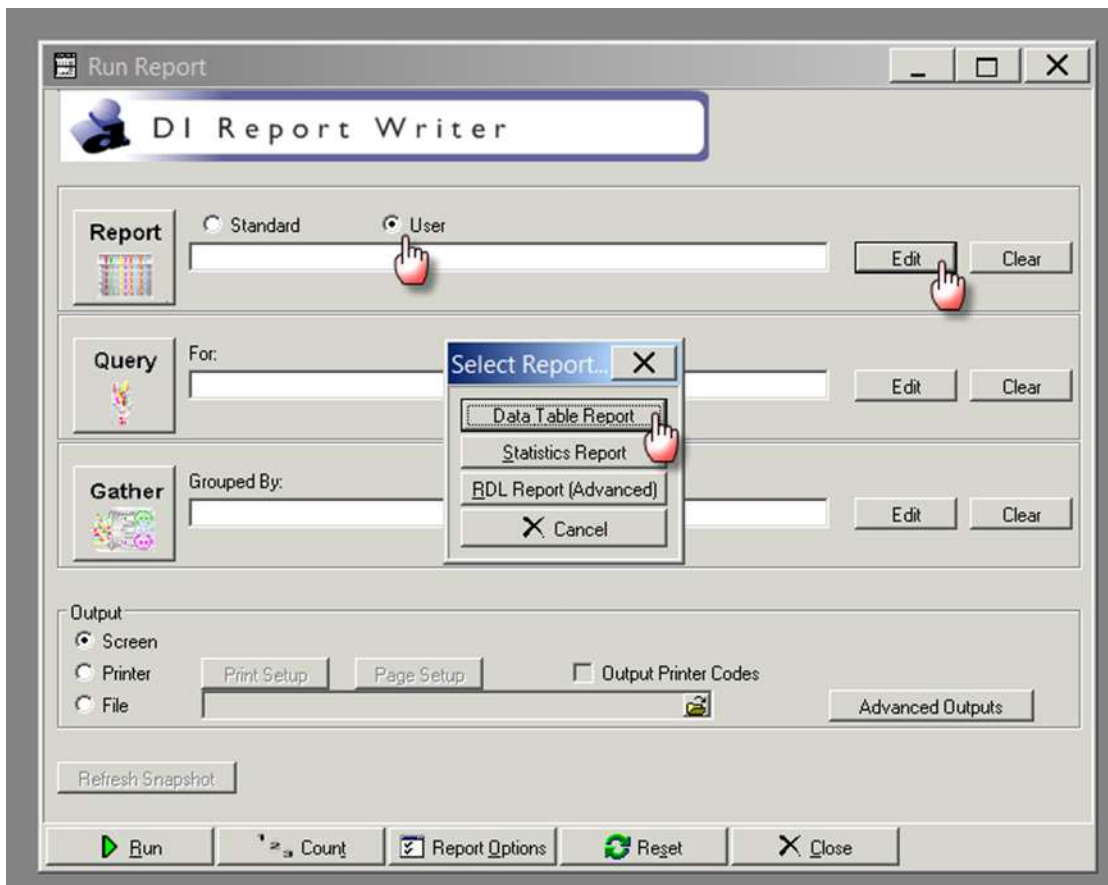




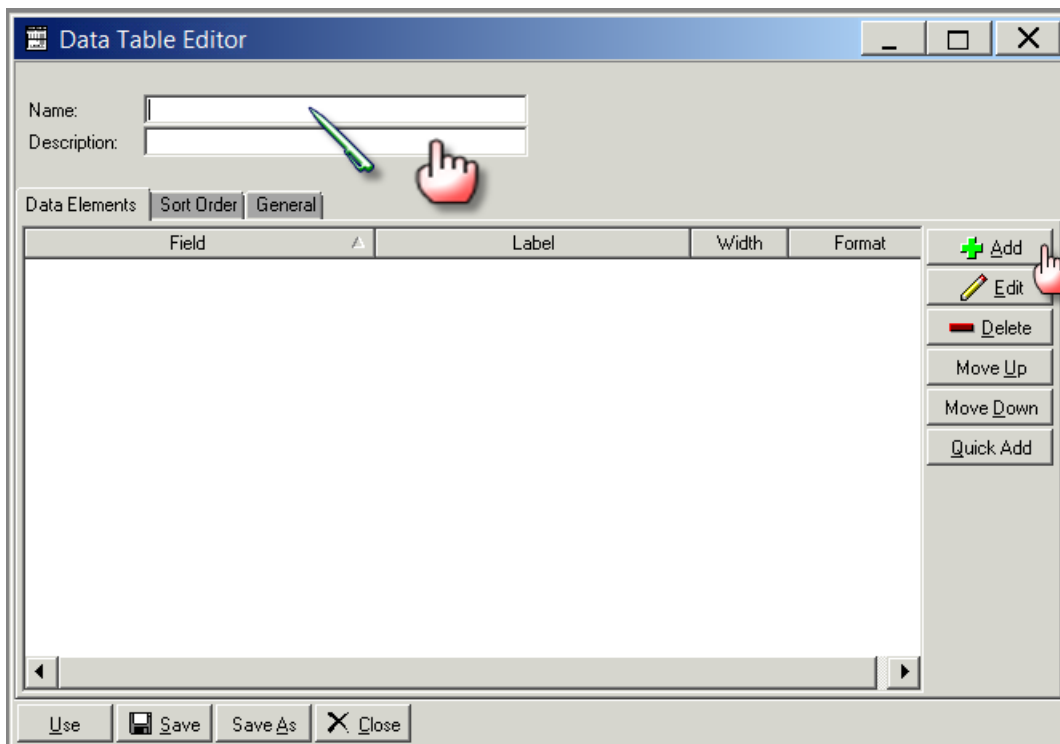
## Report Writer workflow

### Data table report

1. Open Report Writer.
2. Click on Report
3. Select User radio button and Click on Edit
4. A popup screen opens up( as shown in the screenshot)
5. Click on Data Table Report button in this popup screen



6. After you click Data Table Report ( in step 5) the following screen appears
7. Fill in the Name and Description fields as shown in the screenshot



8. A popup screen opens up which allows you to add Fields in your report
9. Select the Name field and enter process indicator name DT\_LAPTIME\_CI\_GT2HRS
10. Select the description field and enter Time to Laparotomy >2hrs
11. Select add
12. Enter the first the Field Name, description and format per table below
13. Select the green “+” button

14. Repeat steps 12 and 13 adding the fields and their labels from the following table:

Field	Label	Width	Format
INST_NUM	Facility Number		
INST_NUM_AS_TEXT	Facility Name		
EDA_EVENT	Facility Arrival_Y4	20	D0E1Z0
AGE_RPT	Age		
E_CODE_1_AS_TEXT	Mechanism		
ISS_RPT	ISS		
DIS_STS_RPT_AS_TEXT	Outcome		
A_PROC_PR	Procedure code		
A_PROC_PR_AS_TEXT	Procedure code as text		
A_PROC_S_EVENT	Procedure Start Date	20	D0E1Z0
A_PROC_S_TM	procedure start time		
MINUS(A_PROC_S_EVENT,EDA_EVENT)	Time to theatre in minutes		

DT\_LAPTIME\_CI\_GT2HRS - Data Table Editor

Name: DT\_LAPTIME\_CI\_GT2HRS  
Description: Lapratomy > 2 hrs CI

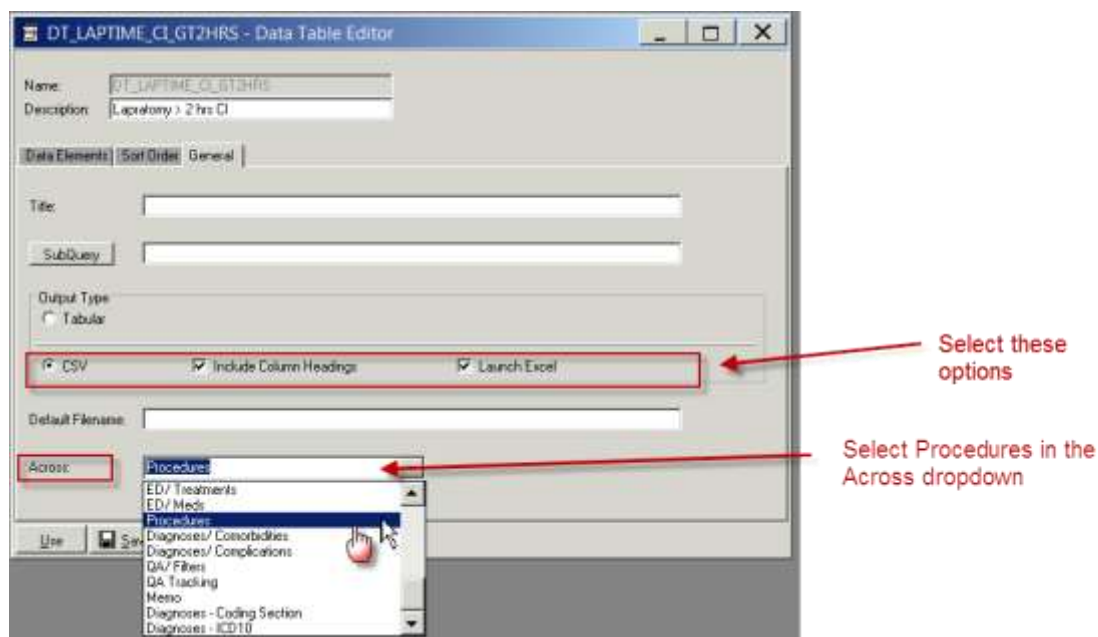
Data Elements | Sort Order | General

Field	Label	Width	Format
INST_NUM	Facility Number		
EDA_EVENT	Arrival Event		D0E1Z0
EDA_DT	Arrival Date at ED		D0E1Z0
A_PROC_PR	Procedure Code		
A_PROC_S_TIME	Proc start time (mins)		
MINUS(A_PROC_S_EVENT, EDA_EVENT)			
A_PROC_PR_AS_TEXT	Procedure Description	500	

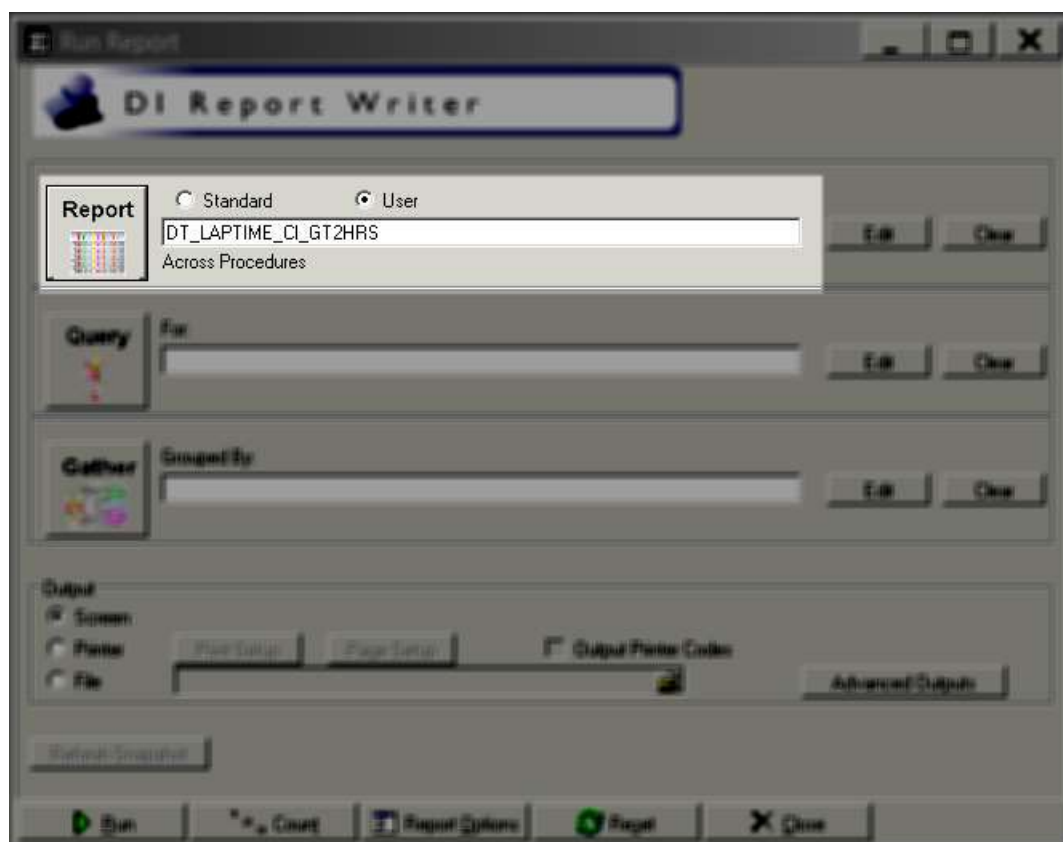
Buttons: Add, Edit, Delete, Move Up, Move Down, Quick Add

Buttons: Use, Save, Save As, Close

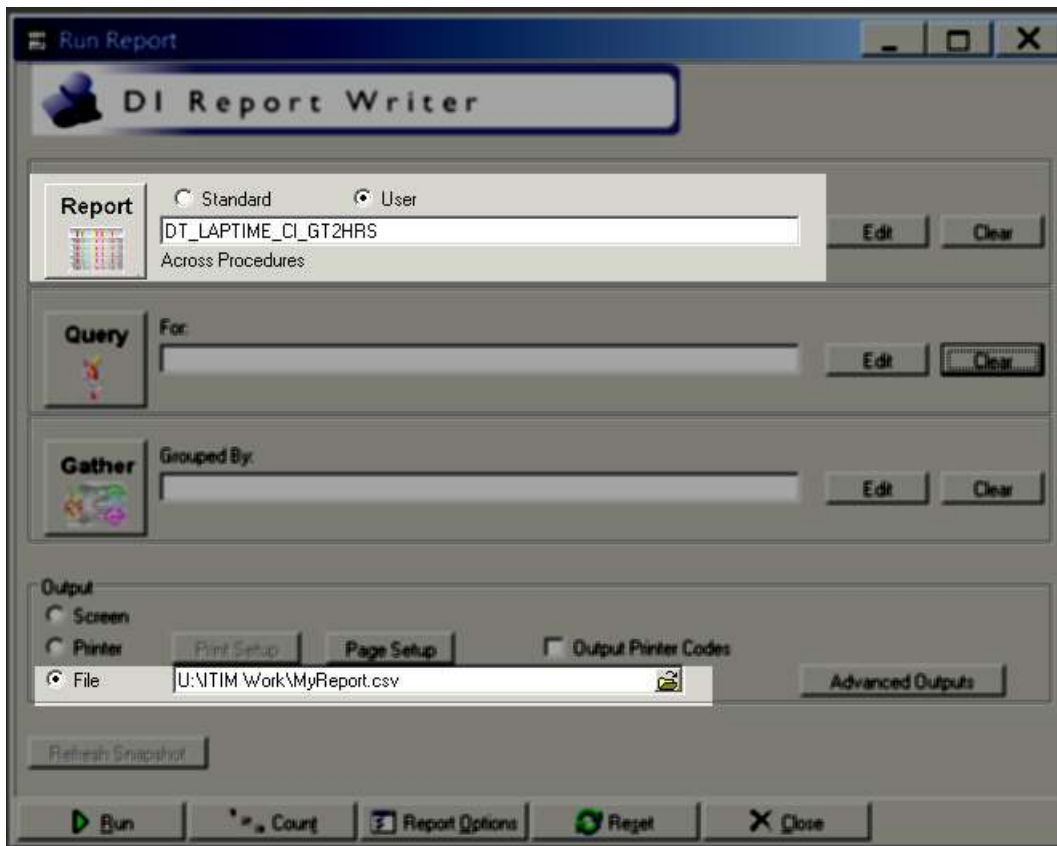
15. Click on General tab
16. Click CSV option and also select Include Column Headings tickbox
17. Select Procedures from Across drop down menu



18. Click save
19. Click on Use which will close this screen



20. Click on the File radio button in Output section



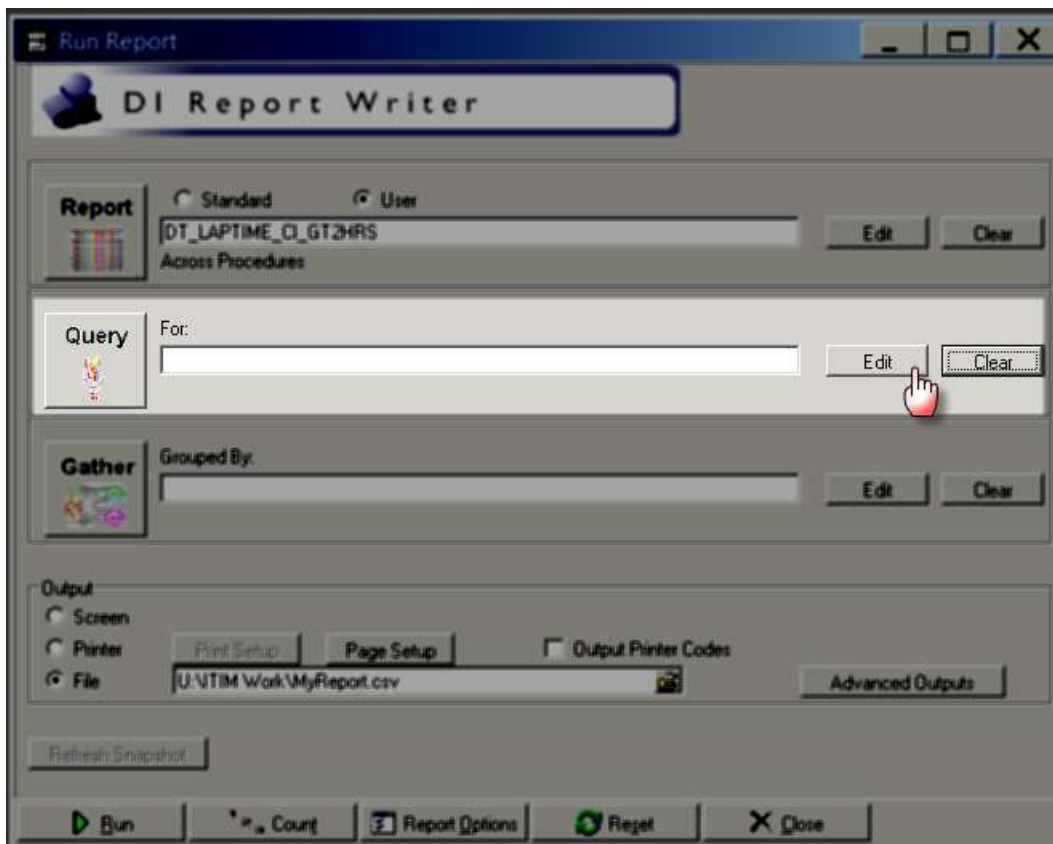
21. Click on the File Folder button will open the "Select File" screen

22. Provide the file name ( also put a .CSV) at the end of file name

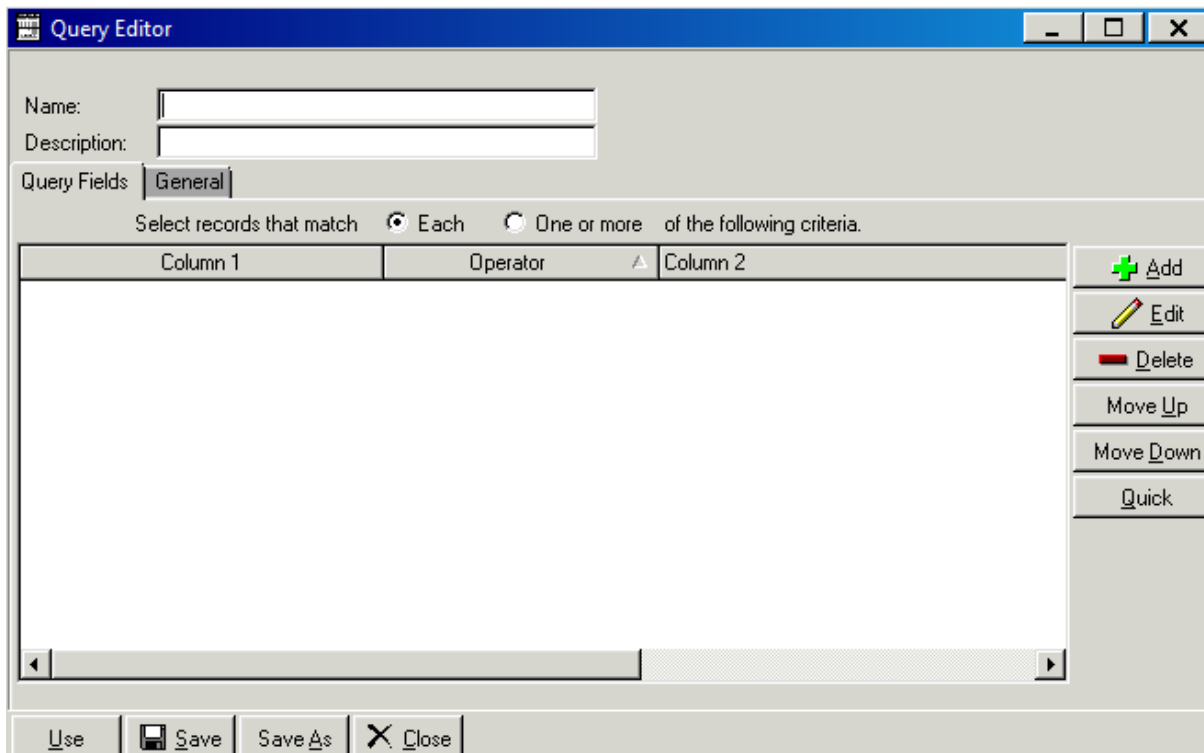
23. Click on Open and the "Select File" screen will close and the name of the file will appear in the "Run Report" screen

## Query

1. Select Query edit button on the main screen on Report Writer

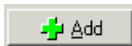


2. Clicking the Query edit button opens the following screen

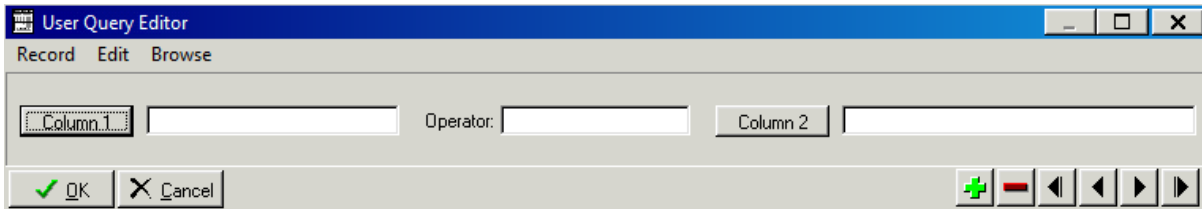


3. Select the Name field and enter process indicator name Q\_LAPTIME\_GT\_2HOUR

4. Select the description field and enter the description Time to Laparotomy > 2 hours
5. Click the Add button on the right hand side of the screen

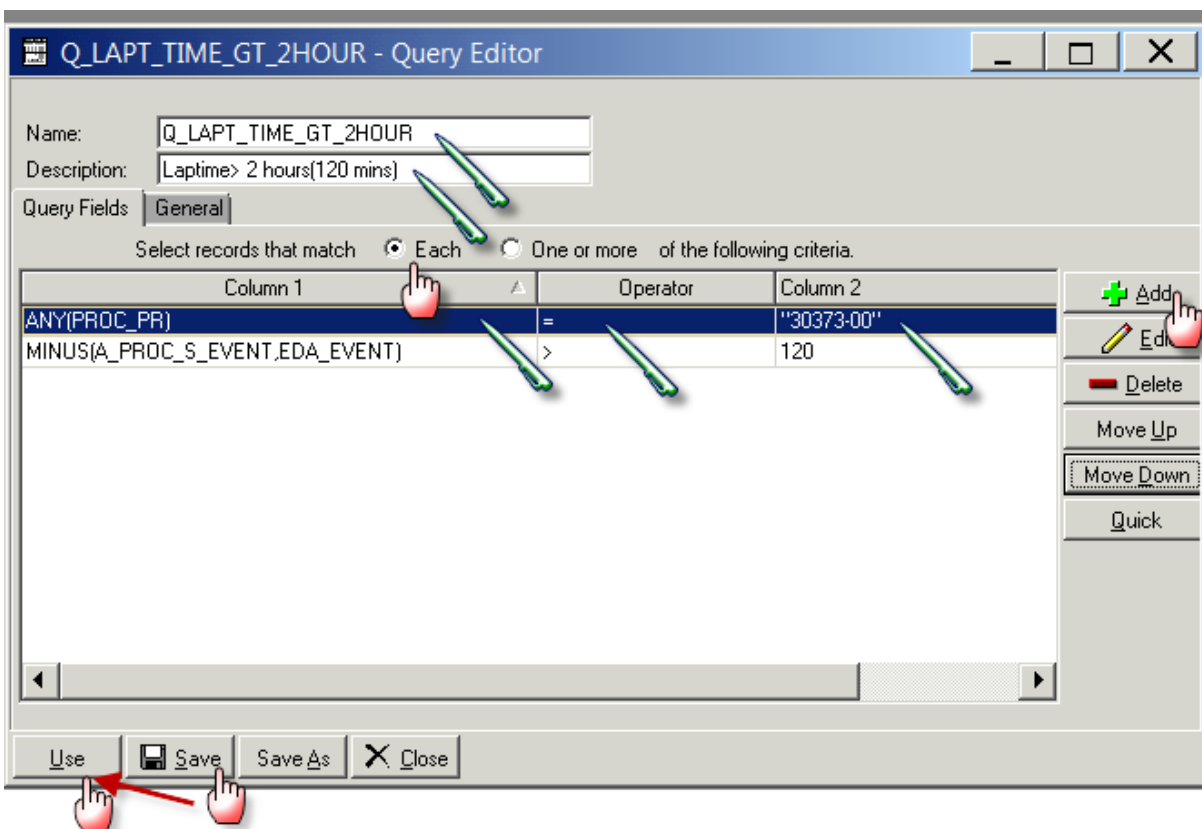


6. Clicking on add button opens the following screen

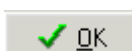


7. Enter the first query field into Column 1, Operator and Column 2 as per table below
8. Select the green “+” button
9. Repeat steps 9 and 10 adding the fields and their labels from the following table:

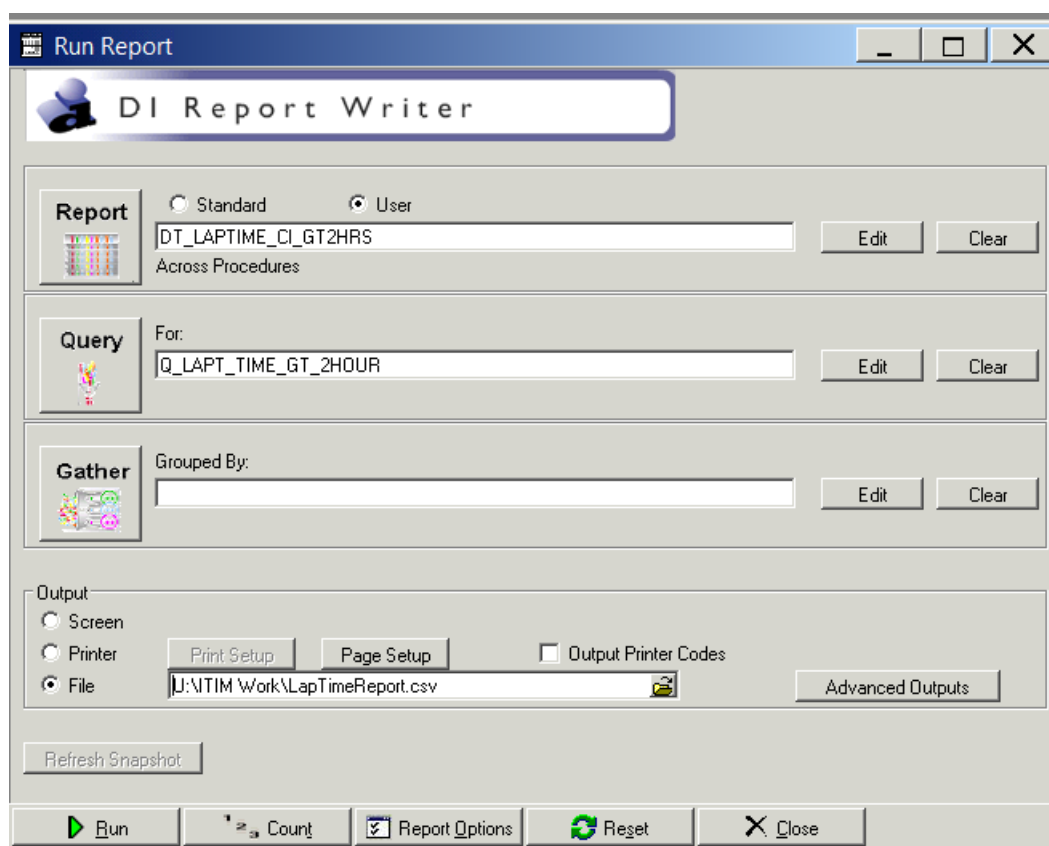
Column 1	Operator	Column 2
MINUS(A_PROC_S_EVENT,EDA_EVENT)	>	120
ANY(PROC_PR)	=	"30373-00"



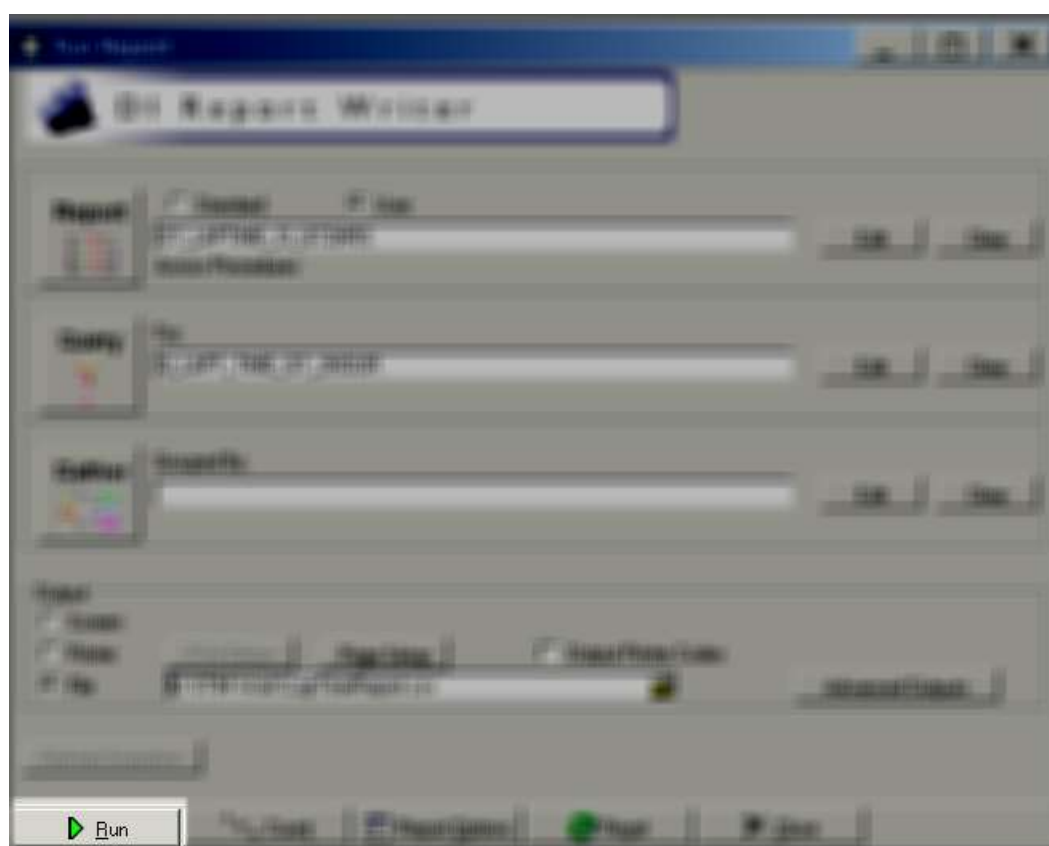
10. Once complete select ok



11. Click on General tab and Select the QA/Filters from the drop down box menu
12. Click Save
13. Click on Use which will close this screen

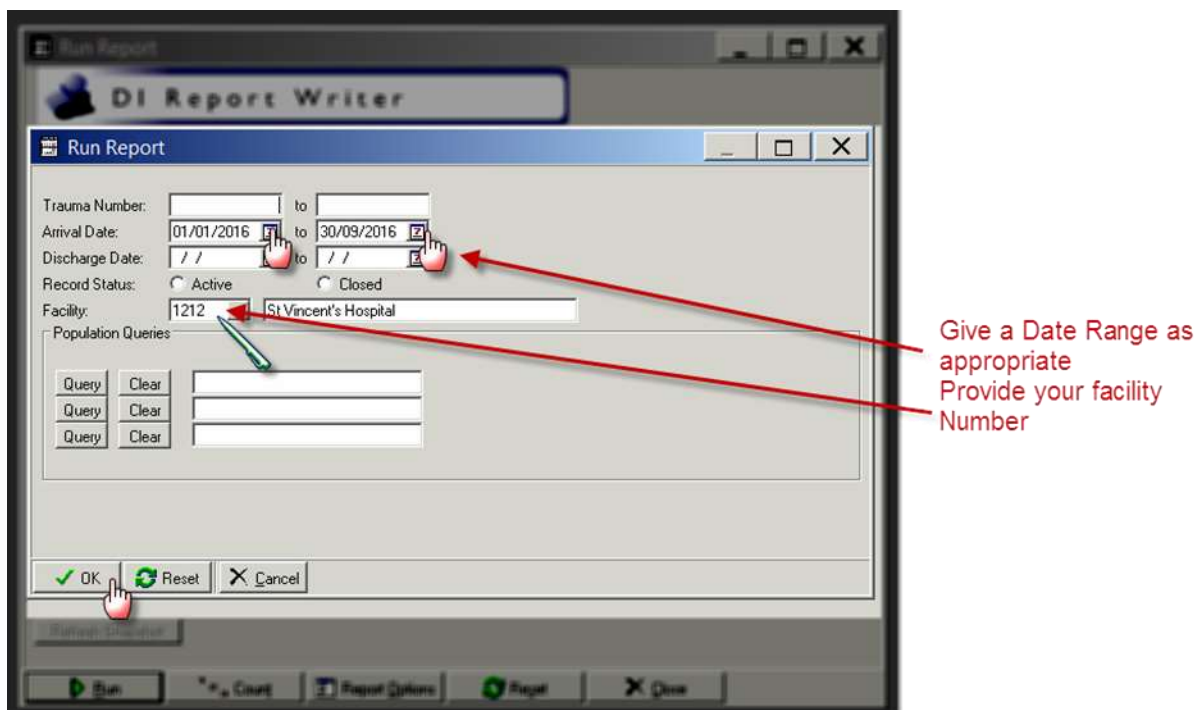


14. Click on Run



15. The following screen will popup





16. Click on OK and the following screen will popup and a CSV file will be created.

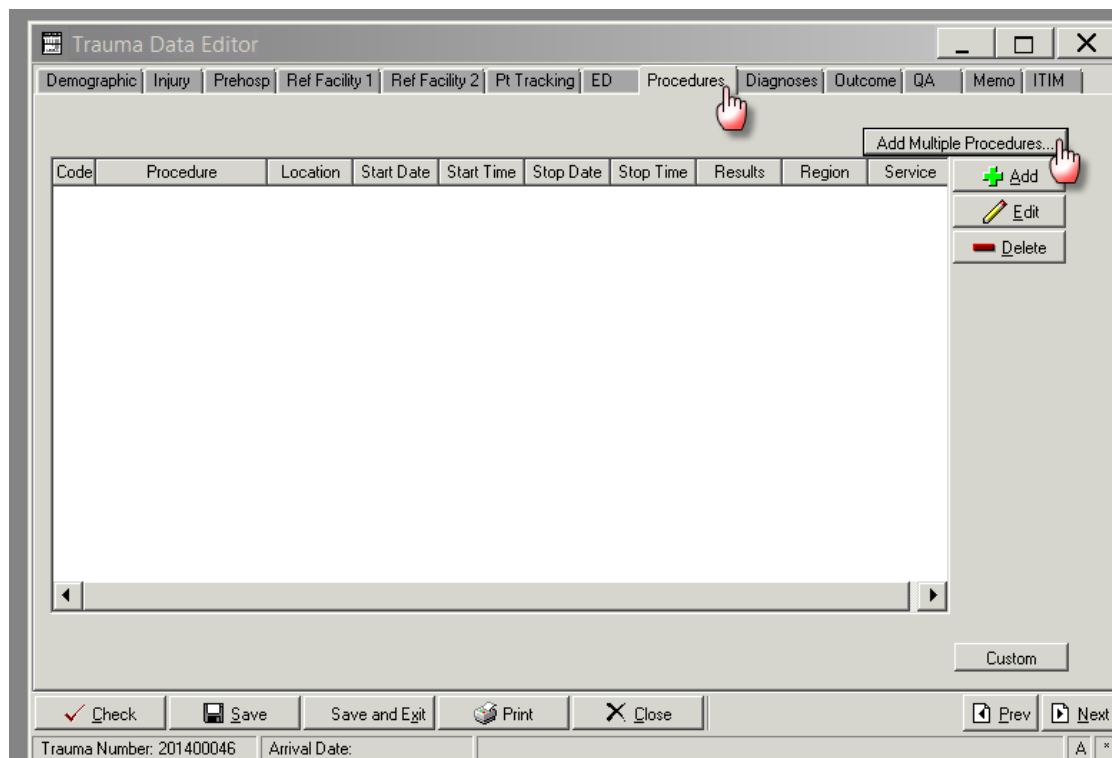


17. A CSV file will be saved in the location you have specified.

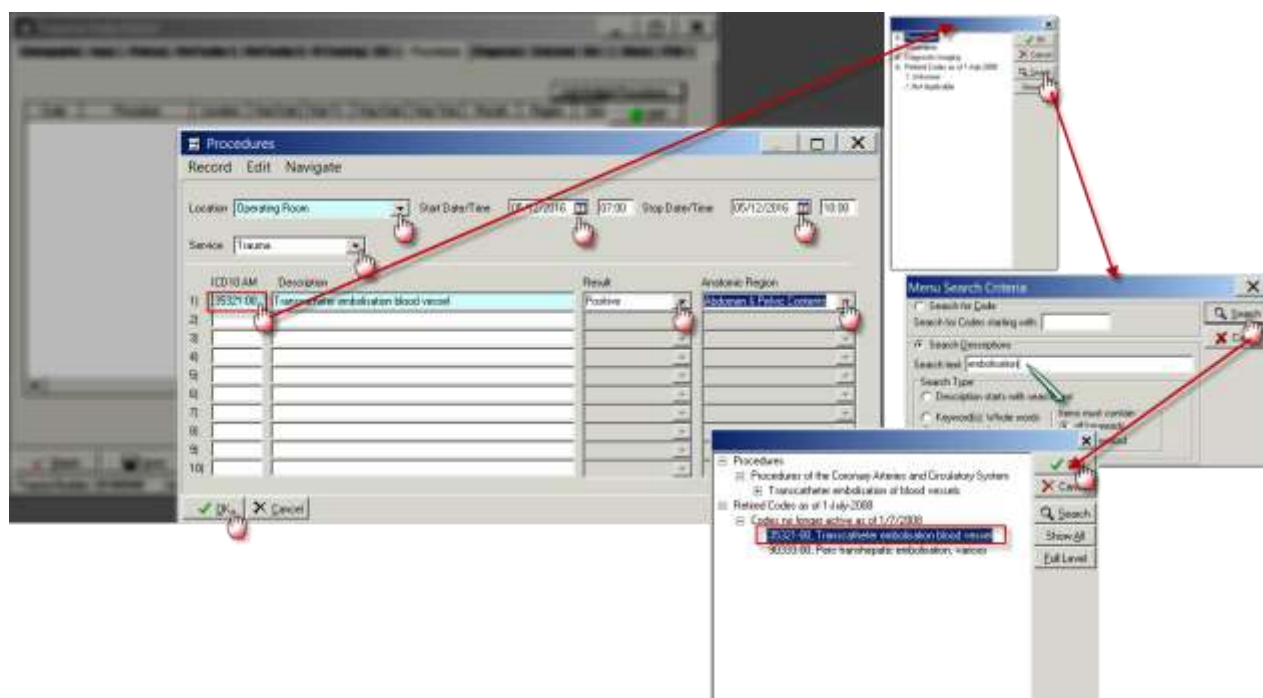
## Appendix 3: PI - 3 workflow

### Collector workflow

1. Select the procedures tab and click on Add Multiple Procedures button



2. Provide Location, Start date/time, Stop date/time and Service
3. Now fill in the ICD 10 codes, clicking in the ICD 10 AM text box will open a popup screen which allows you to search for the codes as shown below.



4. Click on the Save button to save the record

**Trauma Data Editor**

Demographic | Injury | Prehosp | Ref Facility 1 | Ref Facility 2 | Pt Tracking | ED | **Procedures** | Diagnoses | Outcome | QA | Memo | ITIM

Add Multiple Procedures...

Code	Procedure	Location	Start Date	Start Ti...	Stop Date	Stop Time	Results	Region	Serv
35321-00	Transcatheter embolis...	Operating...	05/12/20...	07:00	05/12/20...	10:00	Positive	Abdomen...	Traum

Add Edit Delete

Custom

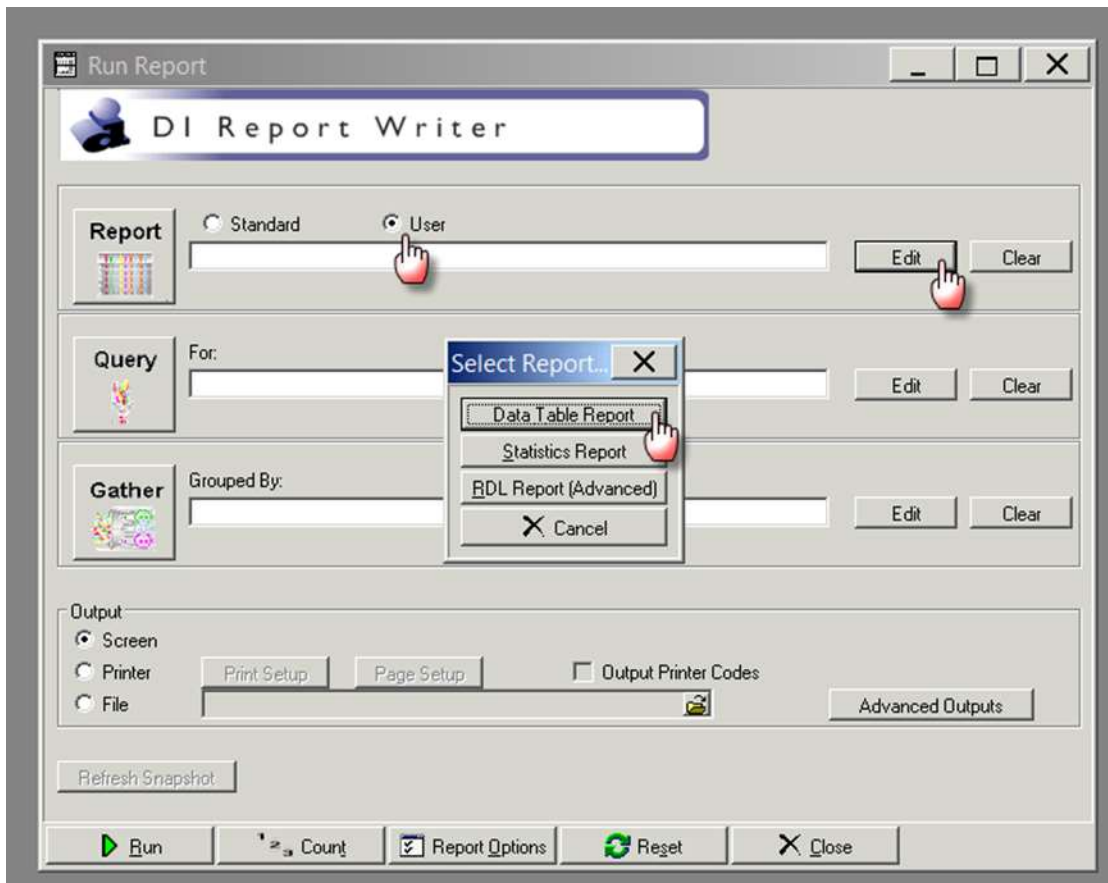
✓ Check | Save | Save and Exit | Print | X Close | Prev | Next

Trauma Number: A Date: A \*

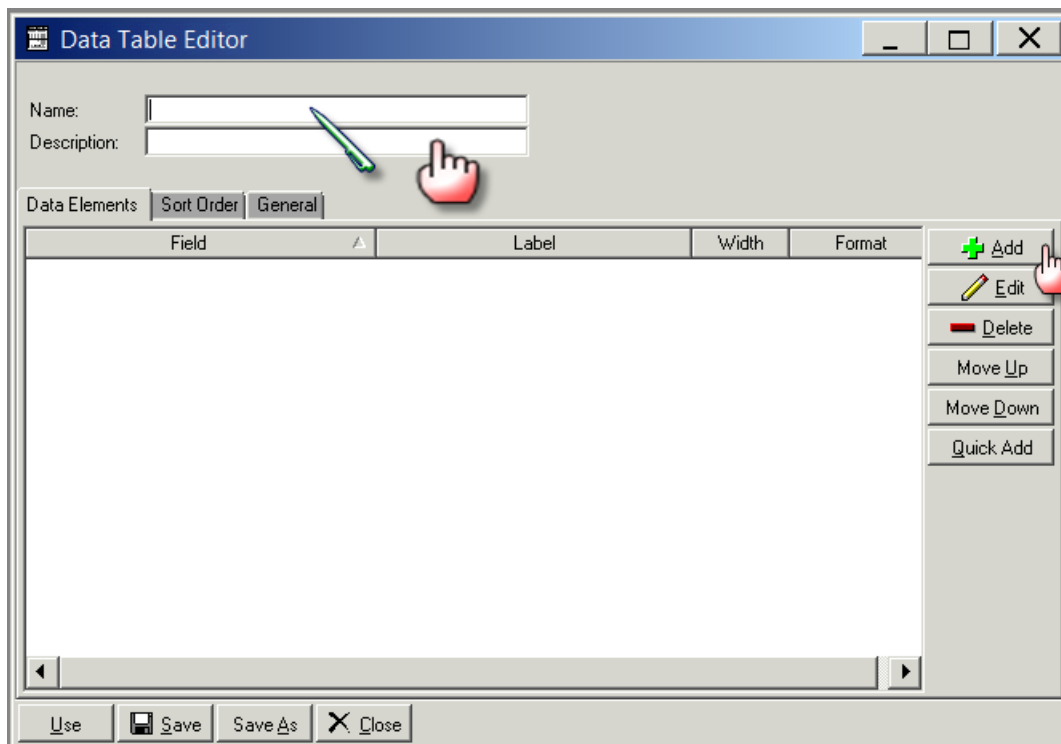
## Report Writer workflow

### Data table report

1. Open Report Writer.
2. Click on Report
3. Select User radio button and Click on Edit
4. A popup screen opens up( as shown in the screenshot)
5. Click on Data Table Report button in this popup screen

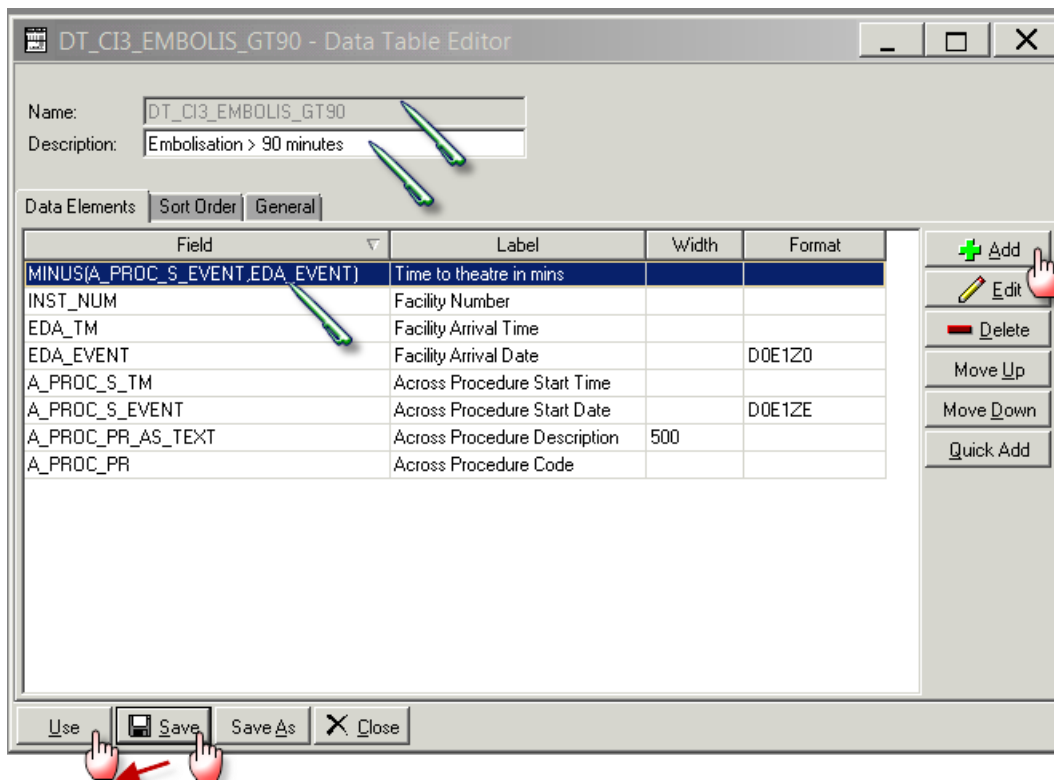


6. After you click Data Table Report ( in step 5) the following screen appears
7. Fill in the Name and Description fields as shown in the screenshot

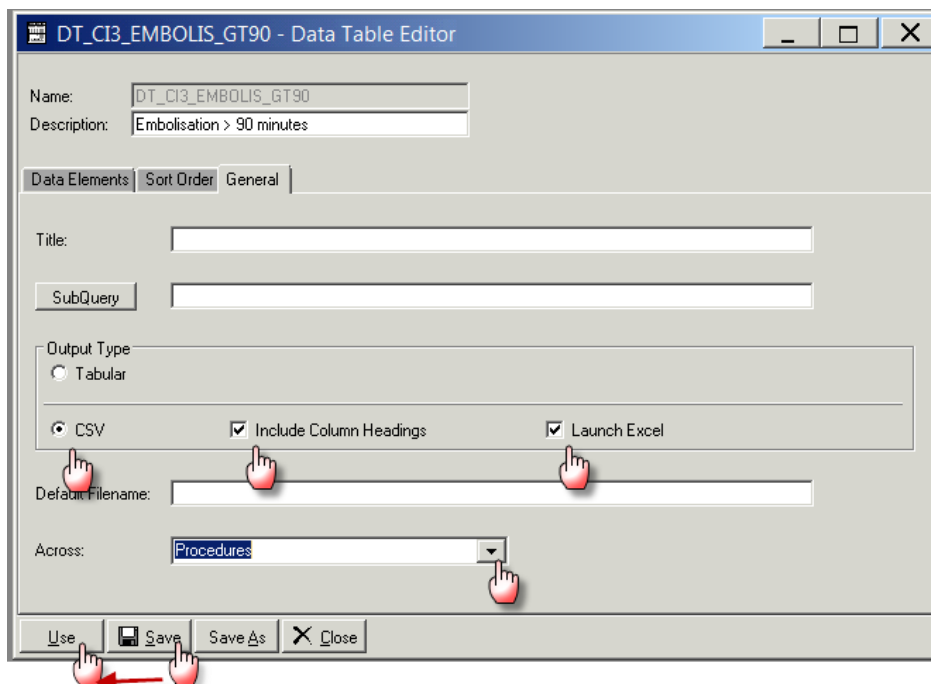


8. A popup screen opens up which allows you to add Fields in your report
9. Select the Name field and enter process indicator name DT\_SCENE\_TIME
10. Select the description field and enter Scene Time
11. Select add
12. Enter the first the Field Name, description and format per table below
13. Select the green “+” button
14. Repeat steps 12 and 13 adding the fields and their labels from the following table:

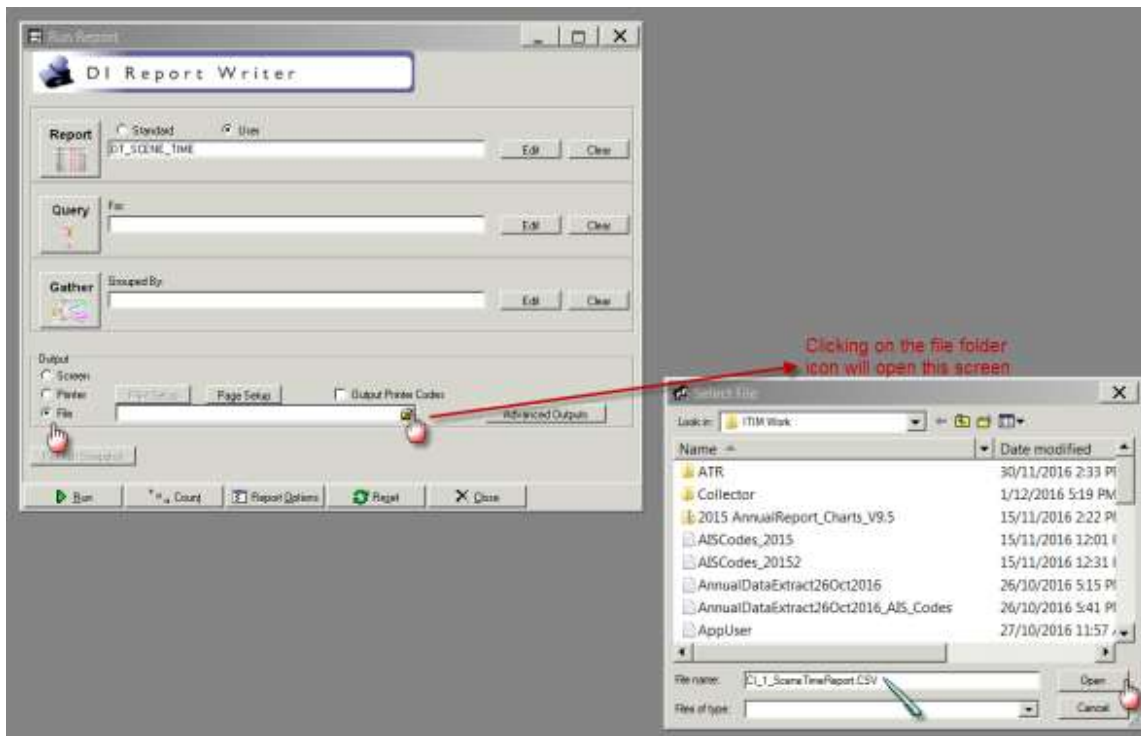
Field	Label	Width	Format
INST_NUM	Facility Number		
EDA_Event	Facility Arrival Date		D0E1Z0
EDA_TM	Facility Arrival Time		D0E1Z0
A_PROC_PR	Across Procedure Code		
A_PROC_PR_AS_TEXT	Across Procedure description	500	
A_PROC_S_EVENT	Across Procedure Start Date		D0E1Z0
A_PROC_S_TM	Across procedure start time		
MINUS(A_PROC_S_EVENT,EDA_EVENT)	Time to theatre in minutes		



15. Click on General tab and click CSV option and also select Include Column Headings tickbox
16. Click on Use which will close this screen
17. Click on the File radio button in Output section
18. Click on the File Folder button will open the "Select File" screen
19. Provide the file name ( also put a .CSV) at the end of file name
20. In the Across Dropdown select Procedures



21. Click on Open and the “Select File” screen will close and the name of the file will appear in the “Run Report” screen



22. Click on Save and Use and the screen will close and the following screen will show up. The report name will be filled in the Report Section

## Queries

1. Select Query edit button on the main screen on Report Writer

The 'Run Report' dialog box is shown with the following elements:

- Report Section:** Includes radio buttons for 'Standard' and 'User' (selected). A text field contains 'DT\_CI3\_EMBOLIS\_GT90' with 'Across Procedures' below it. 'Edit' and 'Clear' buttons are to the right.
- Query Section:** Labeled 'For:', with an empty text field and 'Edit' and 'Clear' buttons. A mouse cursor is clicking the 'Edit' button.
- Gather Section:** Labeled 'Grouped By:', with an empty text field and 'Edit' and 'Clear' buttons.
- Output Section:** Includes radio buttons for 'Screen' (selected), 'Printer', and 'File'. 'Print Setup' and 'Page Setup' buttons are next to 'Printer'. A checkbox for 'Output Printer Codes' is present. An 'Advanced Outputs' button is at the bottom right.
- Buttons:** 'Refresh Snapshot' is at the bottom left. The bottom bar contains 'Run', 'Count', 'Report Options' (checked), 'Reset', and 'Close'.

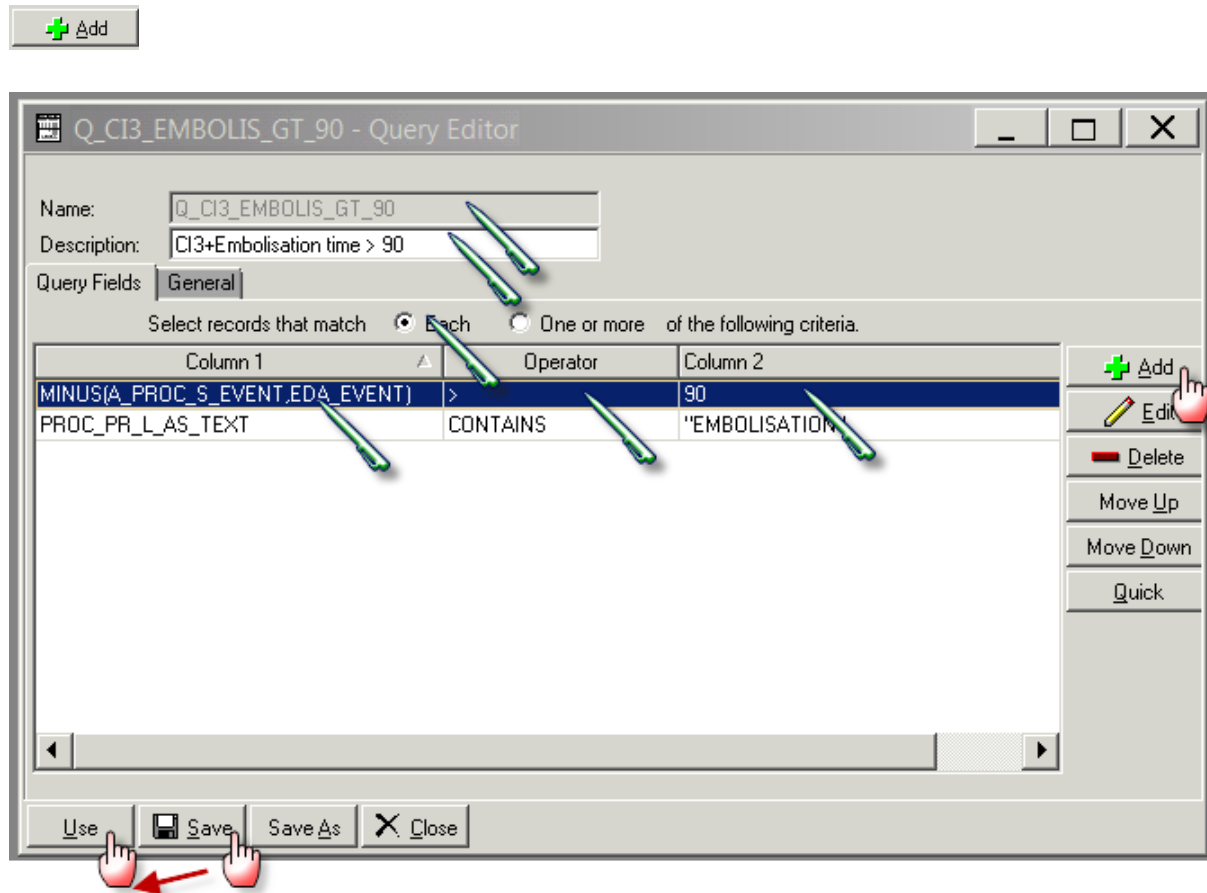
2. Clicking the Query edit button opens the following screen

The 'Query Editor' dialog box is shown with the following elements:

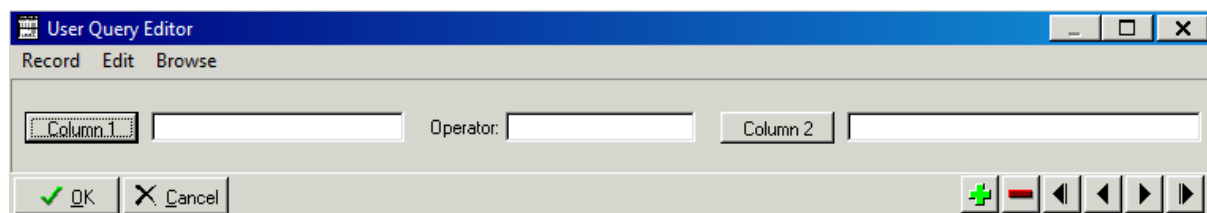
- Fields:** 'Name:' and 'Description:' text fields.
- Query Fields:** A tab labeled 'General'.
- Criteria Selection:** 'Select records that match' followed by radio buttons for 'Each' (selected) and 'One or more', and the text 'of the following criteria.'
- Table:** A table with three columns: 'Column 1', 'Operator' (with a dropdown arrow), and 'Column 2'. The table body is empty.
- Actions:** A vertical stack of buttons on the right: '+ Add', 'Edit' (pencil icon), 'Delete' (red minus icon), 'Move Up', 'Move Down', and 'Quick'.
- Bottom Bar:** 'Use', 'Save', 'Save As', and 'Close' buttons.



3. Select the Name field and enter process indicator name Q\_CI3\_Embolis\_GT\_90
4. Select the description field and enter the description CI# Embolisation time > 90
5. Click the Add button on the right hand side of the screen



6. Clicking on add button opens the following screen



7. Enter the first query field into Column 1, Operator and Column 2 as per table below
8. Select the green "+" button
9. Repeat steps 7 and 8 adding the fields and their labels from the following table:

Column 1	Operator	Column 2
MINUS(A_PROC_S_EVENT,EDA_EVENT)	>	90
PROC_PR_L_AS_TEXT	Contains	"EMBOLISATION"

10. The final query will look like this. Once done click on Save button

11. Click on Use will close this screen

Q\_CI3\_EMBOLIS\_GT\_90 - Query Editor

Name: Q\_CI3\_EMBOLIS\_GT\_90  
Description: CI3+Embolisation time > 90

Query Fields: General

Select records that match ☒ Each ☐ One or more of the following criteria.

Column 1	Operator	Column 2
MINUS(A_PROC_S_EVENT,EDA_EVENT)	>	90
PROC_PR_L_AS_TEXT	CONTAINS	"EMBOLISATION"

Buttons: Add, Edit, Delete, Move Up, Move Down, Quick

Buttons: Use, Save, Save As, Close

12. The Run Report screen will look like this

Run Report

DI Report Writer

Report: ☐ Standard ☒ User  
DT\_CI3\_EMBOLIS\_GT90  
Across Procedures

Query: For: Q\_CI3\_EMBOLIS\_GT\_90

Gather: Grouped By:

Output: ☐ Screen ☐ Printer ☒ File  
Print Setup Page Setup ☐ Output Printer Codes  
U:\ITIM Work\TEST.CSV Advanced Outputs

Refresh Snapshot

Buttons: Run, Count, Report Options, Reset, Close

13. Click on Run

14. The following screen will popup

Run Report

DI Report Writer

Run Report

Trauma Number: [ ] to [ ]

Arrival Date: 01/01/2016 to 30/09/2016

Discharge Date: // to //

Record Status: ☐ Active ☐ Closed

Facility: 1212 St Vincent's Hospital

Population Queries

Query	Clear	[ ]
Query	Clear	[ ]
Query	Clear	[ ]

OK Reset Cancel

Run Count Report Options Repeat Done

Give a Date Range as appropriate  
Provide your facility Number

15. Click on OK and the following screen will popup and a CSV file will be created

Status

Processing records... 98

Abort

16. A CSV file will be saved in the location you have specified

## Appendix 4: PI - 4 workflow

### Collector workflow

1. Go to Pt. Tracking section
2. In this example there are two rows which shows the Location as Intensive Care Unit
3. Go to the line where Location is Intensive Care Unit( as marked in the screenshot, the third line shows that the patient was readmitted to Intensive Care Unit)

**Trauma Data Editor**

Demographic | Injury | Prehosp | Ref Facility 1 | Ref Facility 2 | **Pt. Tracking** | ED | Procedures | Diagnoses | Outcome | QA | Memo | ITIM

**Location Tracking**

Loc Code	Location	Arrival Date	Arrival Time	Depart Date	Depart Time	Time at Loc	Ct
3	Intensive Care Unit	09/08/2016	21:54	12/08/2016	11:36	2 Days 13:42	216
7	High Dependency Unit	12/09/2016	11:36	16/09/2016	11:07	Time < 0	250
3	Intensive Care Unit	16/08/2016	11:07	19/08/2016	10:03	2 Days 22:56	223

**Service Tracking**

Service	Arrival Date	Arrival Time	Depart Date	Depart Time	Detail
Trauma	09/08/2016	17:30	10/08/2016	11:32	
Neurosurgery	10/08/2016	11:32	12/09/2016	12:22	

**Ventilator Tracking**

Start Date	Start Time	Stop Date	Stop Time	Detail
09/08/2016	17:00	12/08/2016	09:00	
16/08/2016	11:07	18/08/2016	09:30	reintubated due to sepsis in the lungs

Buttons: Check, Save, Save and Exit, Print, Close, Prev, Next

Trauma Number: Arrival Date: 6/1/2016

4. Click on Edit Button

**Trauma Data Editor**

Demographic | Injury | Prehosp | Ref Facility 1 | Ref Facility 2 | **Pt. Tracking** | ED | Procedures | Diagnoses | Outcome | QA | Memo | ITIM

**Location Tracking**

Loc Code	Location	Arrival Date	Arrival Time	Depart Date	Depart Time	Time at Loc	Ct
3	Intensive Care Unit	09/08/2016	21:54	12/08/2016	11:36	2 Days 13:42	216
7	High Dependency Unit	12/09/2016	11:36	16/09/2016	11:07	Time < 0	250
3	Intensive Care Unit	16/08/2016	11:07	19/08/2016	10:03	2 Days 22:56	223

**Location Tracking** (Dialog Box)

Record Edit Browse

Loc Code: Intensive Care Unit

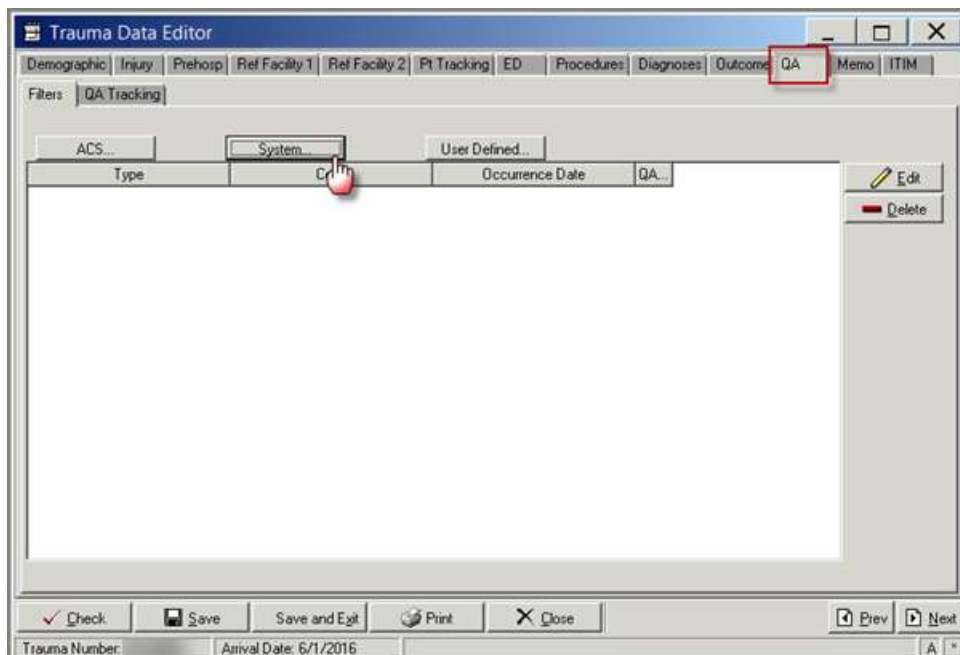
Arrival: 16/08/2016 11:07

Departure: 19/08/2016 10:03

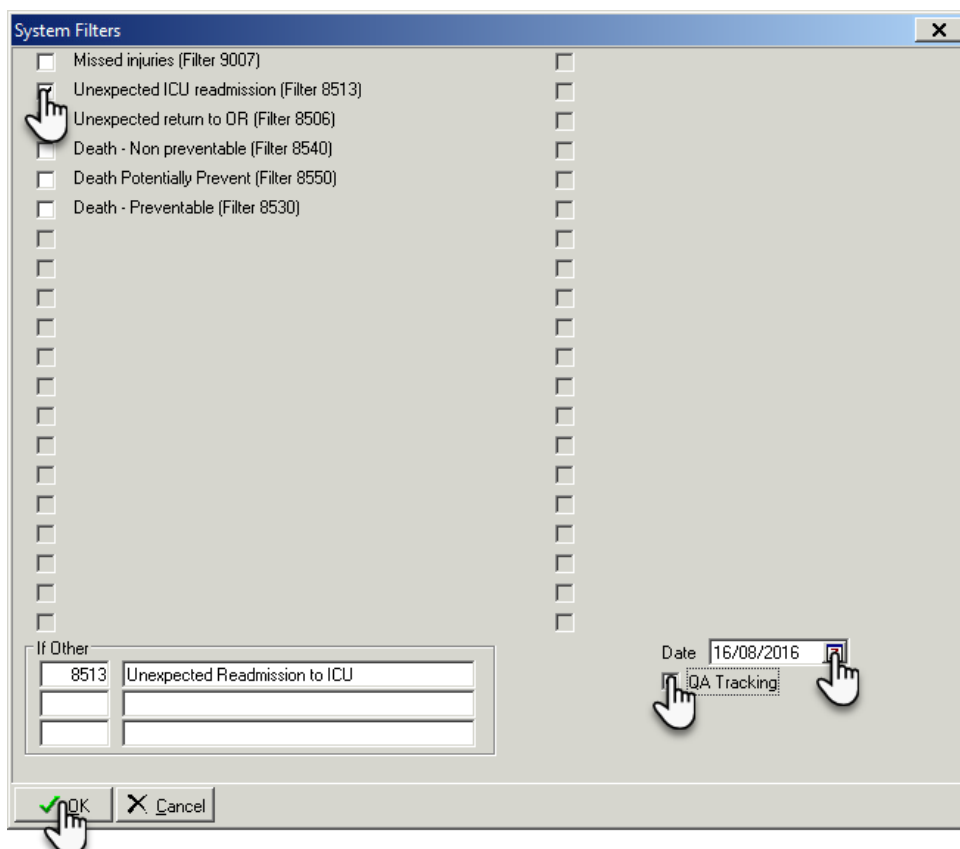
Detail: Readmitted to ICU due to Septic episode

Buttons: Check, Save and Exit, Cancel

5. Add your details to explain why the patient was readmitted to ICU
6. Click on Save and Exit
7. Go to QA Section and click on System button

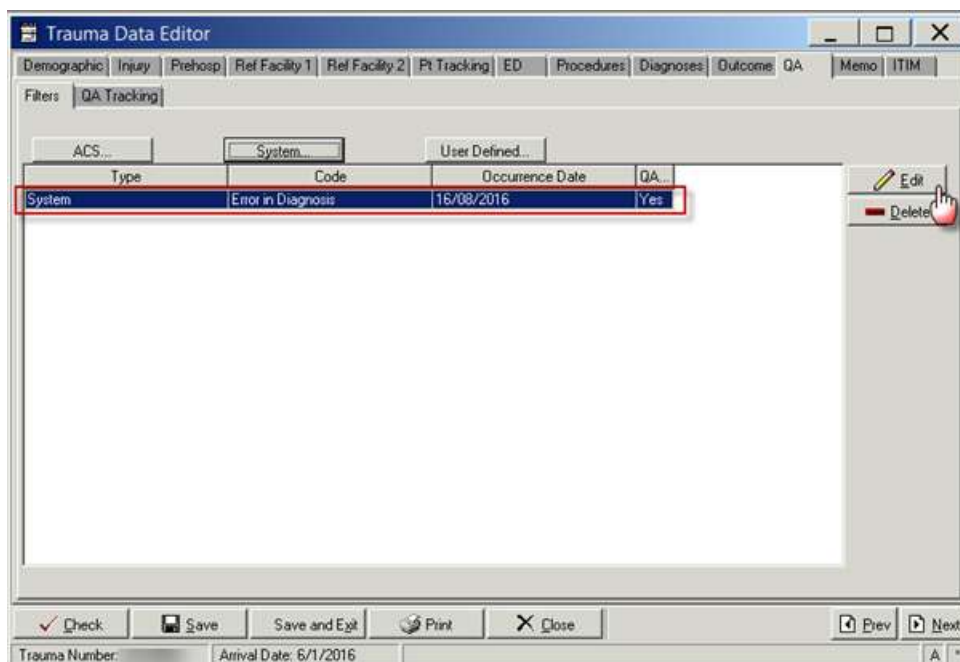


8. The following screen will popup.
9. Click on the Unexpected ICU admission (Filter 8513)
10. Fill in the date
11. Click on QA Tracking
12. Click on OK
13. The popup screen will close



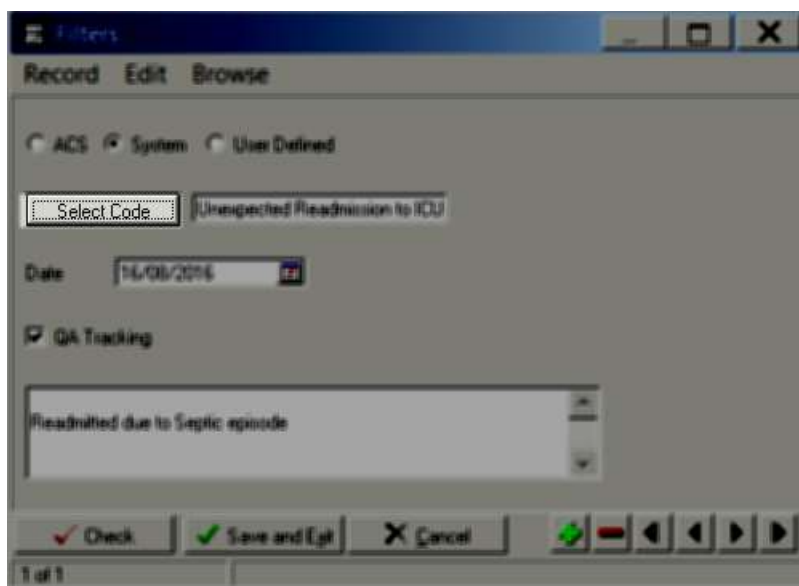
14. The QA filter you just save will be shown as below

15. Click on Edit button



16. A popup screen will come up as shown below

17. Click on Select Code

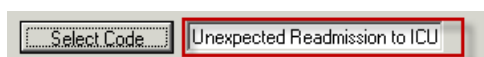


18. Add 8513 in the screen as shown below

19. Click on OK



20. The popup screen will close and the following screen will appear and the text box in front of the Select Code button will have the text filled in “Unexpected Readmission to ICU”



21. Add the details as to why the readmission to ICU was required

22. Click on Save and Exit



23. The following Screen will appear

24. Click on Save and Exit to save the record and exit.

**Trauma Data Editor**

Demographic | Injury | Prehosp | Ref Facility 1 | Ref Facility 2 | Pt Tracking | ED | Procedures | Diagnoses | Outcome | QA | Memo | ITIM

Filters: QA Tracking

ACS... System... User Defined...

Type	Code	Occurrence Date	QA...
System	Unexpected Readmission to ICU	16/08/2016	Yes

Edit  
Delete

✓ Check Save Save and Exit Print X Close Prev Next

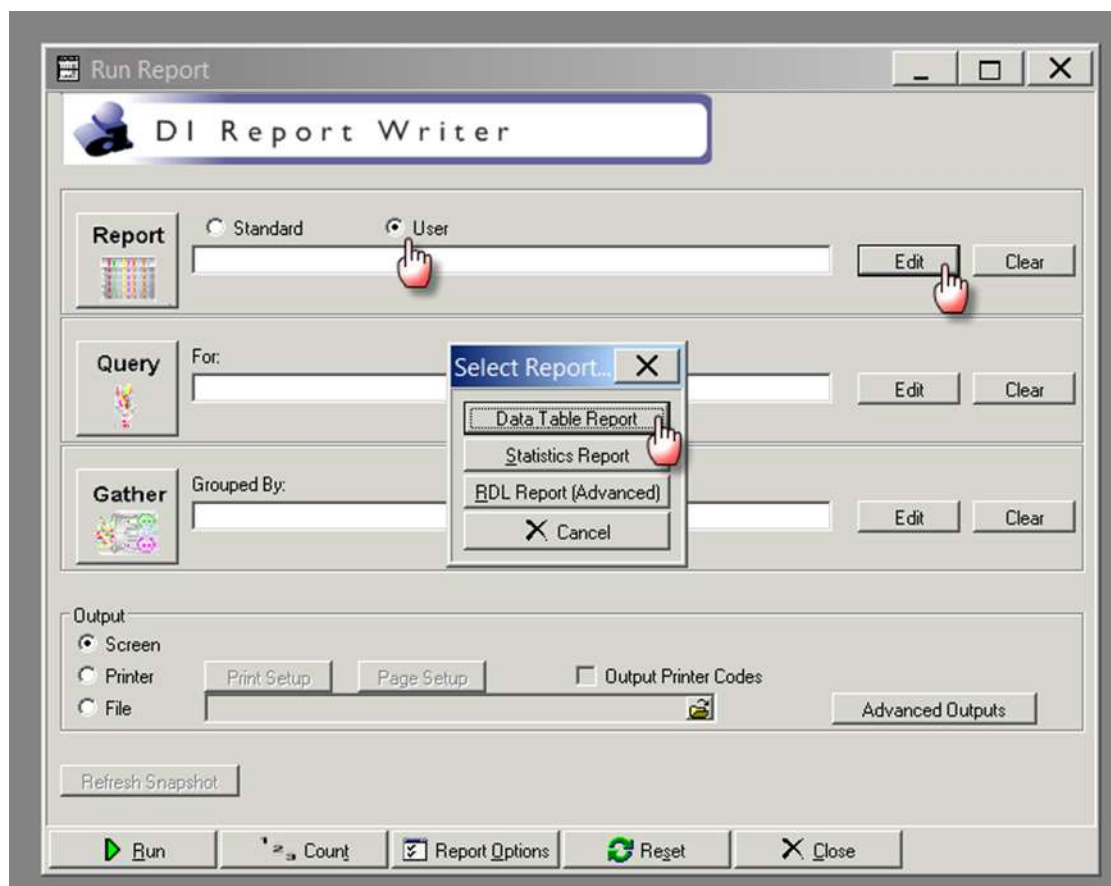
Trauma Number: Arrival Date: 6/1/2016



## Report Writer Workflow

### Data Table Report

1. Open Report Writer.
2. Click on Report
3. Select User radio button and Click on Edit
4. A popup screen opens up( as shown in the screenshot)
5. Click on Data Table Report button in this popup screen



6. After you click Data Table Report ( in step 5) the following screen appears
7. Fill in the Name and Description fields as shown in the screenshot
8. A popup screen opens up which allows you to add Fields in your report
9. Select the Name field and enter process indicator name DT\_CI\_4\_REPORT
10. Select the description field and enter CI4 Report
11. Select add
12. Enter the first the Field Name, description and format per table below
13. Select the green “+” button

14. Repeat steps 11 and 12 adding the fields and their labels from the following table:

Field	Label	Width	Format
INST_NUM	Facility Number		
TRAUMA_NUM	Trauma ID		
AGE_RPT	Age		
EDA_DT	Facility Arrival Date		D0E1Z0
FLT_CDE_L_AS_TEXT	QA Description		
FLT_CDE_L	Filter Code		

15. Click on General tab and click CSV option and also select Include Column Headings tickbox

DT\_CI\_4\_REPORT - Data Table Editor

Name: DT\_CI\_4\_REPORT  
Description: CI4 report

Data Elements | Sort Order | **General**

Title:

SubQuery:

Output Type  
☐ Tabular  
☒ **CSV**
☒ Include Column Headings
 ☒ Launch Excel

Default Filename:

Across:

Use | Save | Save As | Close

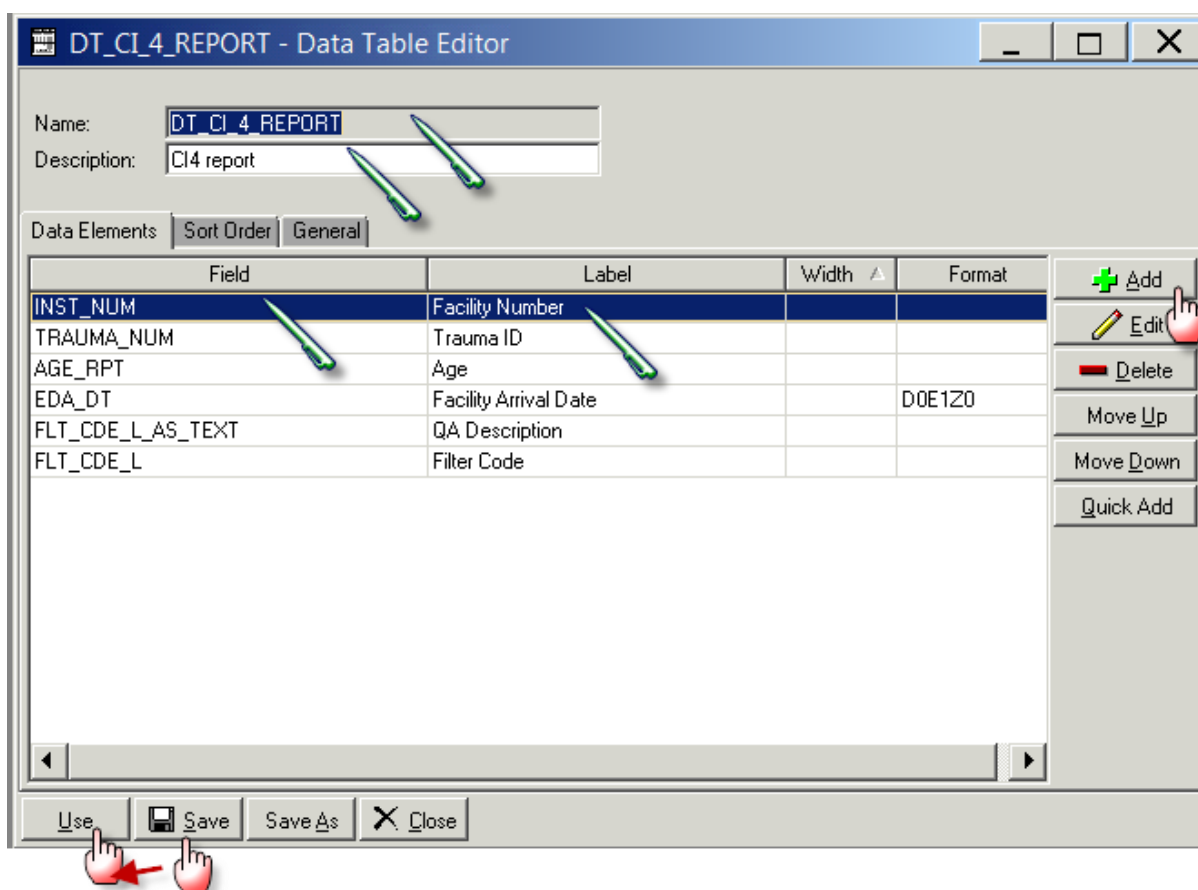
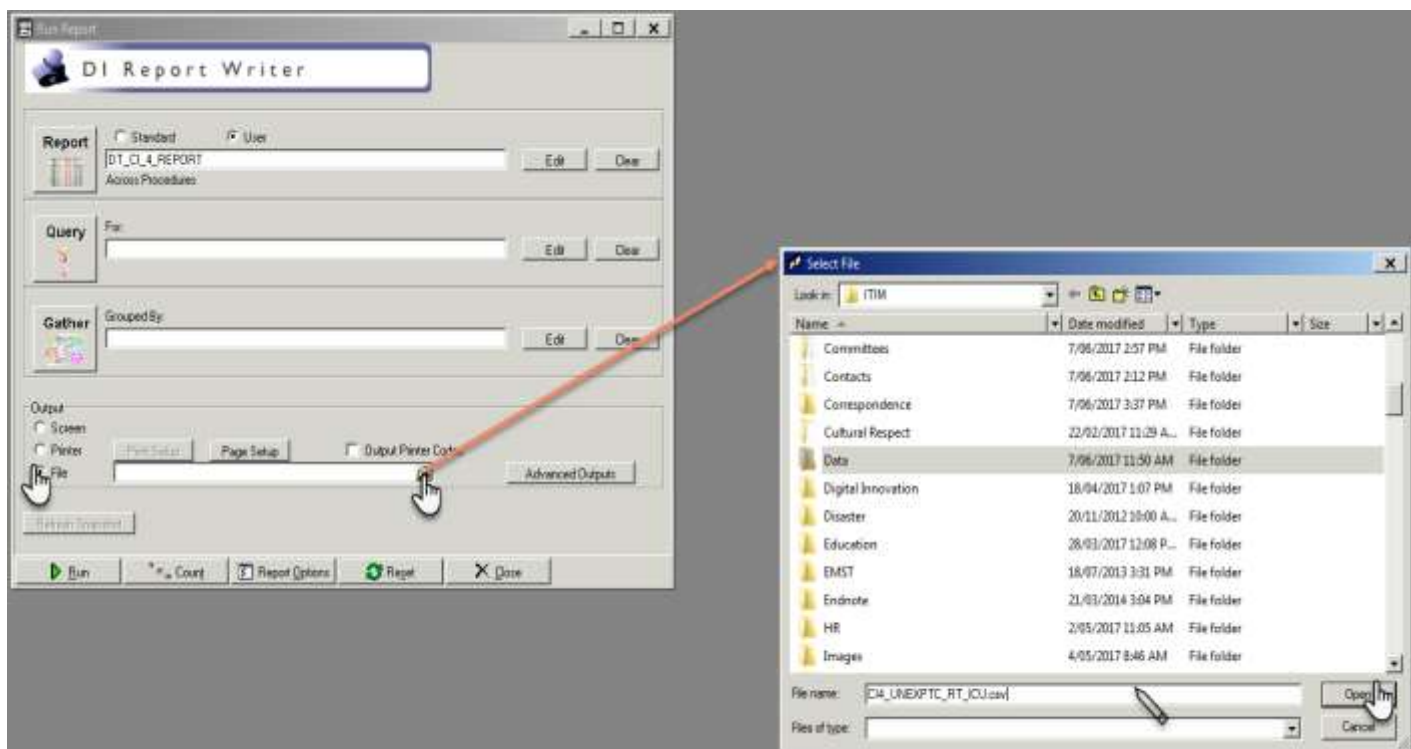
16. Click on Use which will close this screen

17. Click on the File radio button in Output section

18. Click on the File Folder button will open the "Select File" screen

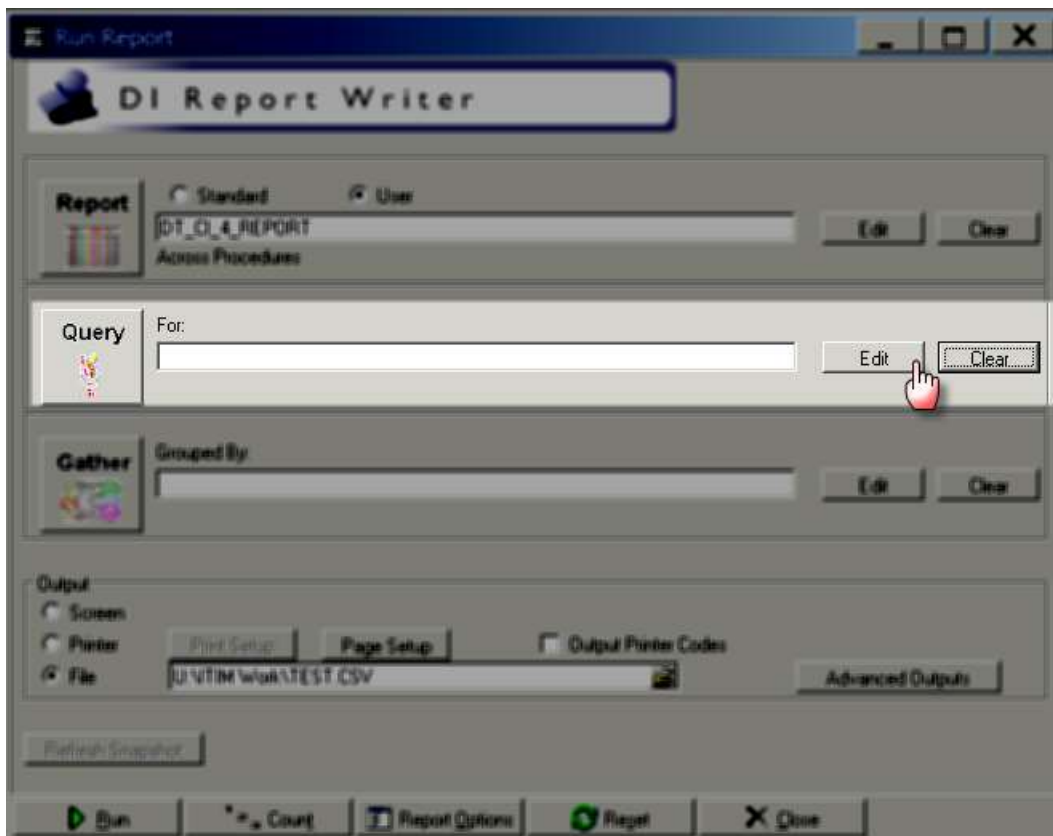
19. Provide the file name ( also put a .CSV) at the end of file name

20. Click on Open and the "Select File" screen will close and the name of the file will appear in the "Run Report" screen

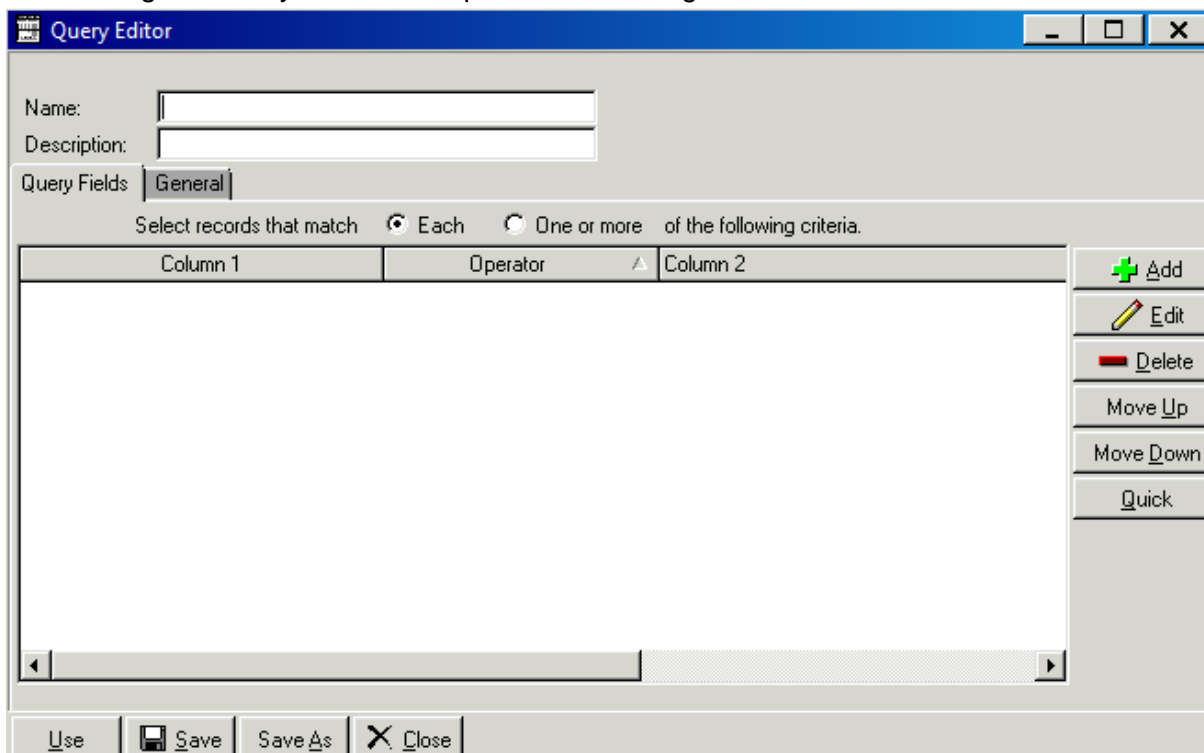


## Query

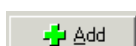
1. Select Query edit button on the main screen on Report Writer



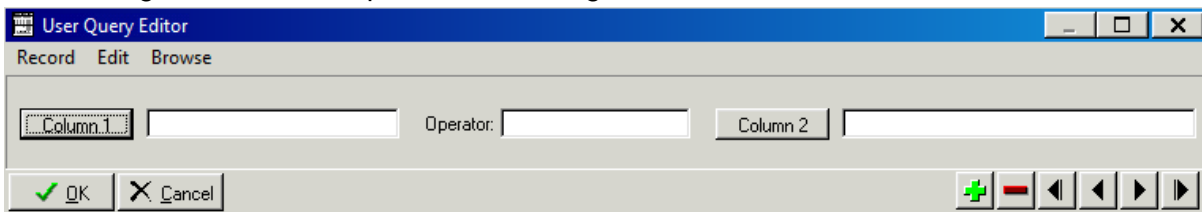
2. Clicking the Query edit button opens the following screen



3. Select the Name field and enter process indicator name Q\_CI4\_UNEXPTC\_RT\_ICU
4. Select the description field and enter the description CI4 Unexpected return to ICU
5. Click the Add button on the right hand side of the screen



6. Clicking on add button opens the following screen

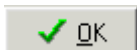


The 'User Query Editor' dialog box has a title bar with standard window controls. Below the title bar are three tabs: 'Record', 'Edit', and 'Browse'. The main area contains three input fields: 'Column 1', 'Operator', and 'Column 2'. At the bottom left are 'OK' and 'Cancel' buttons. At the bottom right are five navigation buttons: a green plus button, a red minus button, and three arrow buttons (left, center, right).

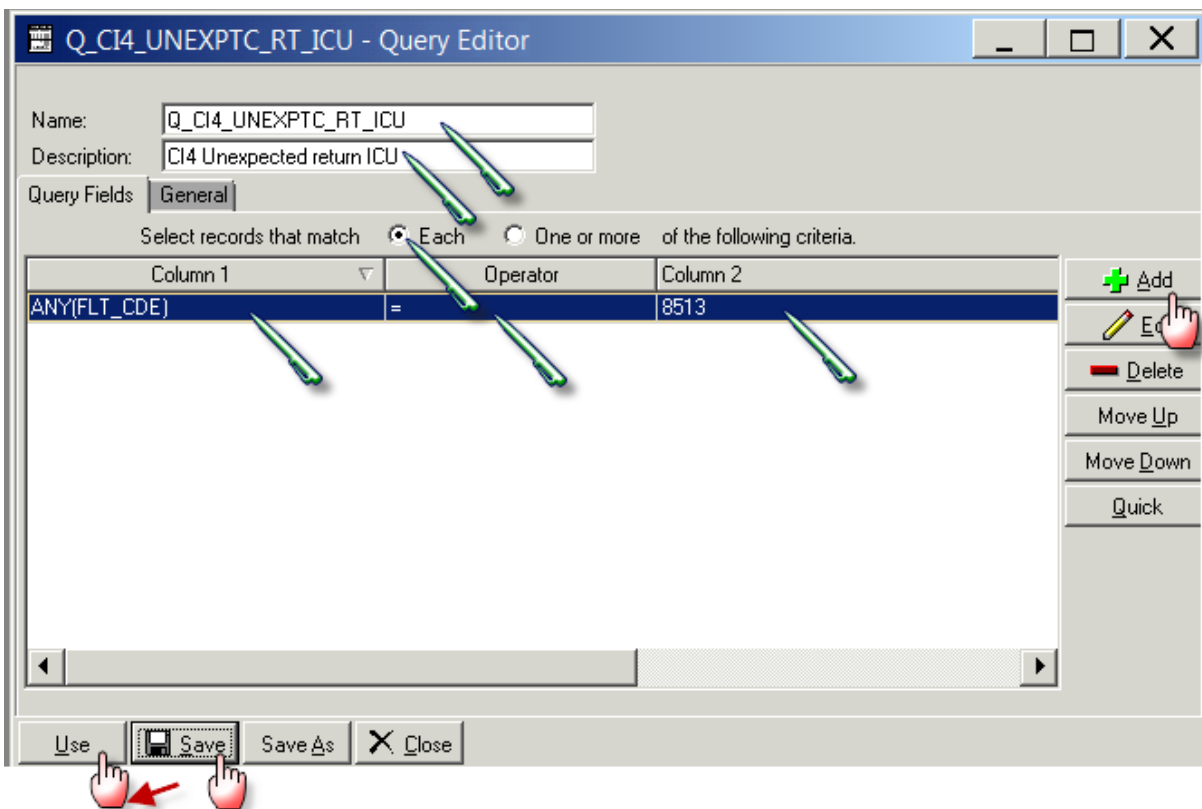
7. Enter the first query field into Column 1, Operator and Column 2 as per table below

Column 1	Operator	Column 2
ANY(FLT_CDE)	=	8513

8. Once complete select ok



9. The final query will look like this. Once done click on save button.



The 'Q\_CI4\_UNEXPTC\_RT\_ICU - Query Editor' dialog box has a title bar with standard window controls. Below the title bar are two tabs: 'Query Fields' and 'General'. The 'General' tab is active. It contains a 'Name' field with 'Q\_CI4\_UNEXPTC\_RT\_ICU' and a 'Description' field with 'CI4 Unexpected return ICU'. Below these is a section 'Select records that match' with two radio buttons: 'Each' (selected) and 'One or more'. Below this is a table with three columns: 'Column 1', 'Operator', and 'Column 2'. The table contains one row: 'ANY(FLT\_CDE)', '=', and '8513'. To the right of the table is a vertical toolbar with buttons: 'Add' (green plus), 'Edit' (pencil), 'Delete' (red minus), 'Move Up', 'Move Down', and 'Quick'. At the bottom are four buttons: 'Use', 'Save' (with a floppy disk icon), 'Save As', and 'Close'. Red arrows point to the 'Use' and 'Save' buttons.

10. Click on Use which will close this screen

11. Once the report and the query has been filled in, click on Run to run the report

**Run Report**

**DI Report Writer**

**Report**  
☐ Standard ☒ User  
DT\_CI\_4\_REPORT  
Across Procedures  
Edit Clear

**Query**  
For:  
Q\_CI4\_UNEXPTC\_RT\_ICU  
Edit Clear

**Gather**  
Grouped By:  
Edit Clear

**Output**  
☐ Screen  
☐ Printer  
☒ File  
Print Setup Page Setup ☐ Output Printer Codes  
J:\ITIM Work\test.csv Advanced Outputs

Refresh Snapshot

Run Count Report Options Reset Close

12. The following screen will popup where you can set the filters for your report as shown below.

**Run Report**

**DI Report Writer**

Trauma Number: 1212 to  
Arrival Date: 01/01/2016 to 30/09/2016  
Discharge Date: // to //  
Record Status: ☒ Active ☐ Closed  
Facility: 1212 St Vincent's Hospital  
Population Queries  
Query Clear  
Query Clear  
Query Clear

OK Reset Cancel

Run Count Report Options Reset Close

Give a Date Range as appropriate  
Provide your facility Number

13. Click on OK and the following screen will popup and a CSV file will be created.

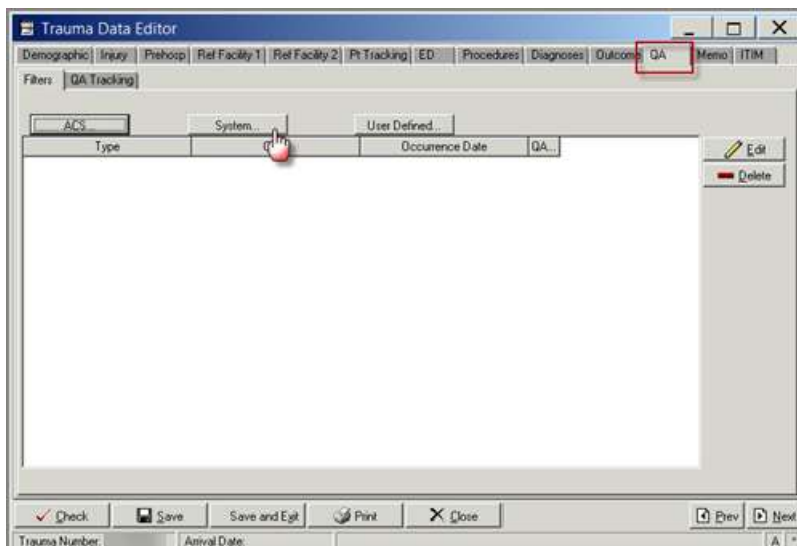


14. A CSV file will be saved in the location you have specified.

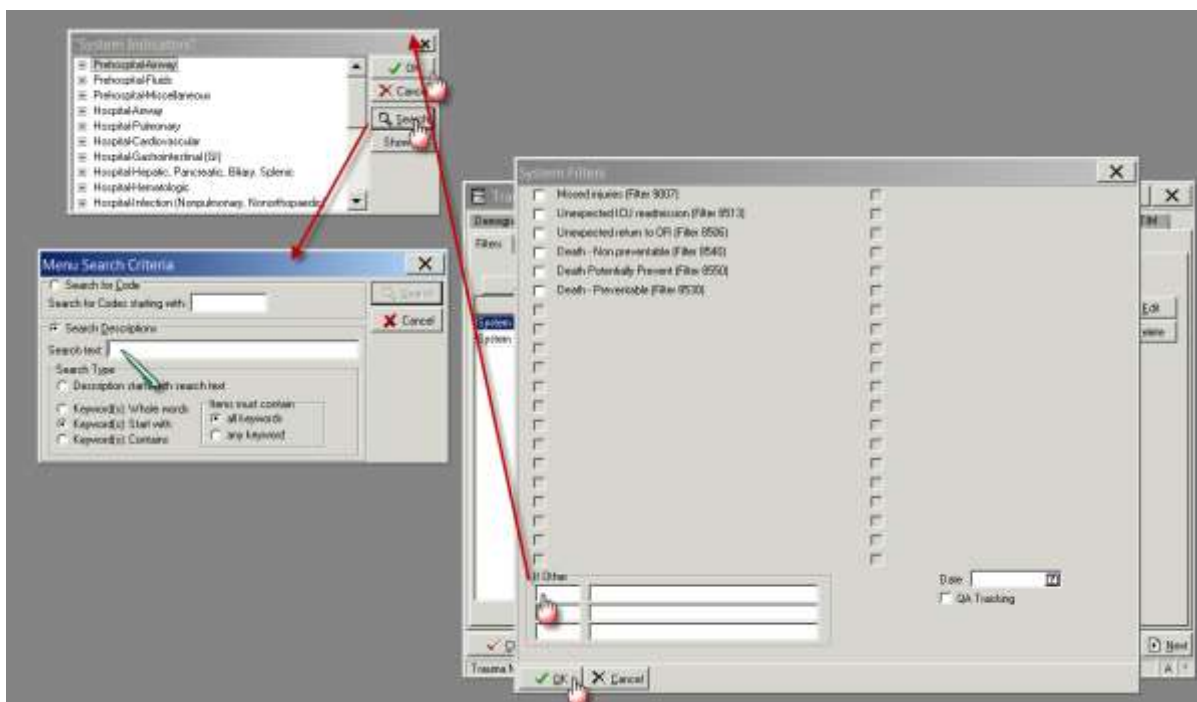
## Appendix 5: PI - 5 workflow

### Collector workflow

1. Select the QA tab in collector
2. Click on System button

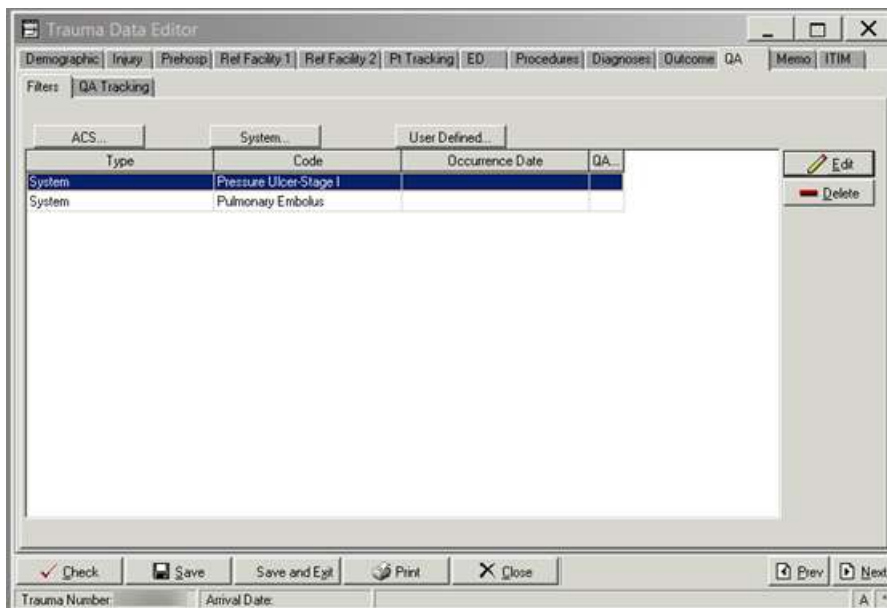


3. Go to "In Other" section in the System Filters screen
4. Enter the System Indicator by clicking in the small text box and the System Indicators screen will pop up which allows you to search and select the System Indicators.
5. Click OK once you have found the System Indicator which you want to use

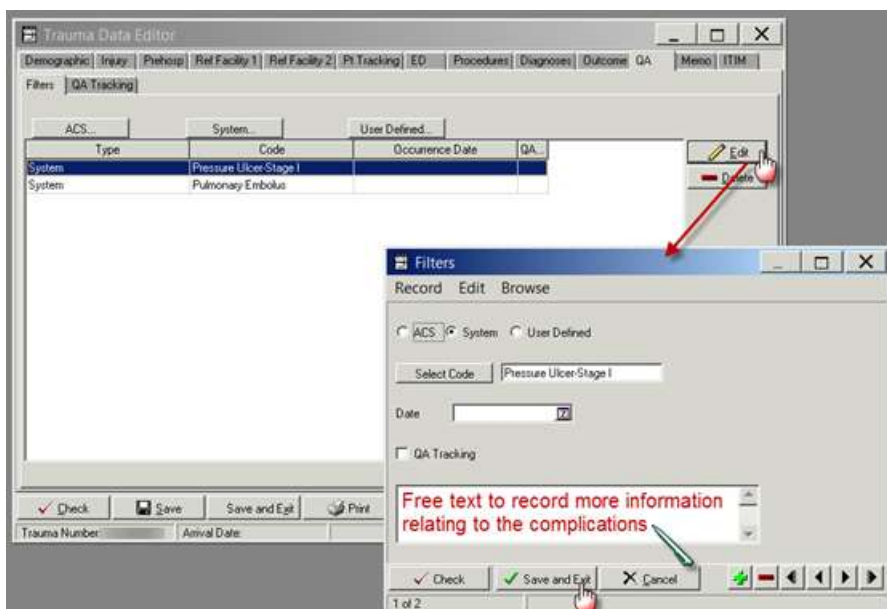


6. Once you click on OK the information will be recorded as shown below





7. Click on Edit button to add more information



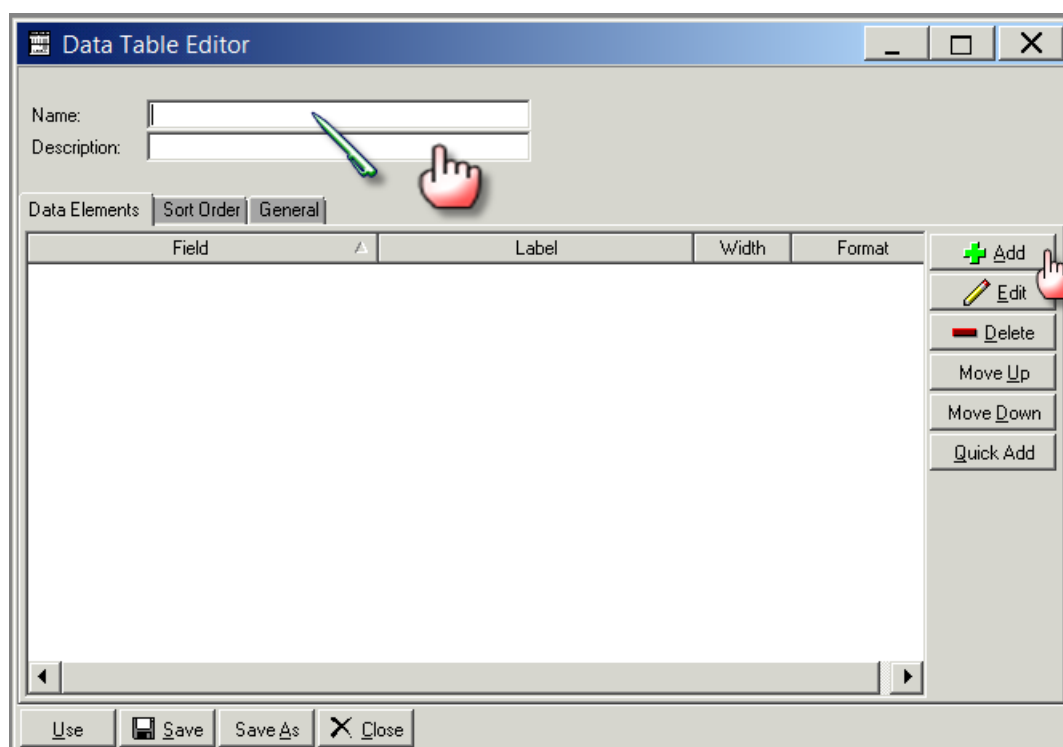
## Report Writer workflow

### Data table report

1. Open Report Writer.
2. Click on Report
3. Select User radio button and Click on Edit
4. A popup screen opens up( as shown in the screenshot)
5. Click on Data Table Report button in this popup screen



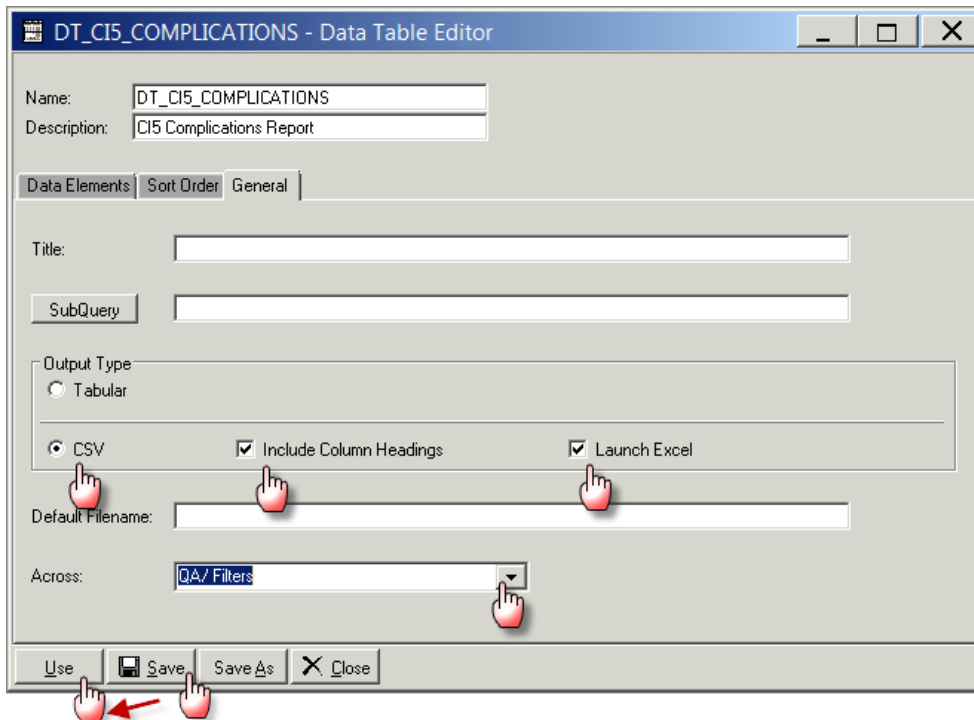
6. After you click Data Table Report ( in step 5) the following screen appears
7. Fill in the Name and Description fields as shown in the screenshot



8. A popup screen opens up which allows you to add Fields in your report
9. Select the Name field and enter process indicator name DT\_ COMPLICATIONS
10. Select the description field and enter CI Complications
11. Select add
12. Enter the first the Field Name, description and format per table below
13. Select the green “+” button
14. Repeat steps 12 and 13 adding the fields and their labels from the following table:

Field	Label	Width	Format
INST_NUM	Facility Number		
TRAUMA_NUM	Trauma ID		
GENDER_AS_TEXT	Gender		
AGE_RPT	Age		
EDA_DT	Facility Arrival Date		D0E1Z0
A_FLT_CDE	Complication Code		

15. Once you have selected all data elements for your report select the General Tab in the same screen
16. Ensure that the CSV, Include Column Heading and Launch Excel options are ticked
17. Click on the Across drop down and select QA/Filters
18. Click on Save
19. Click on Use



**DT\_CI5\_COMPLICATIONS - Data Table Editor**

Name:

Description:

**Data Elements** | **Sort Order** | **General**

Title:

SubQuery:

Output Type:

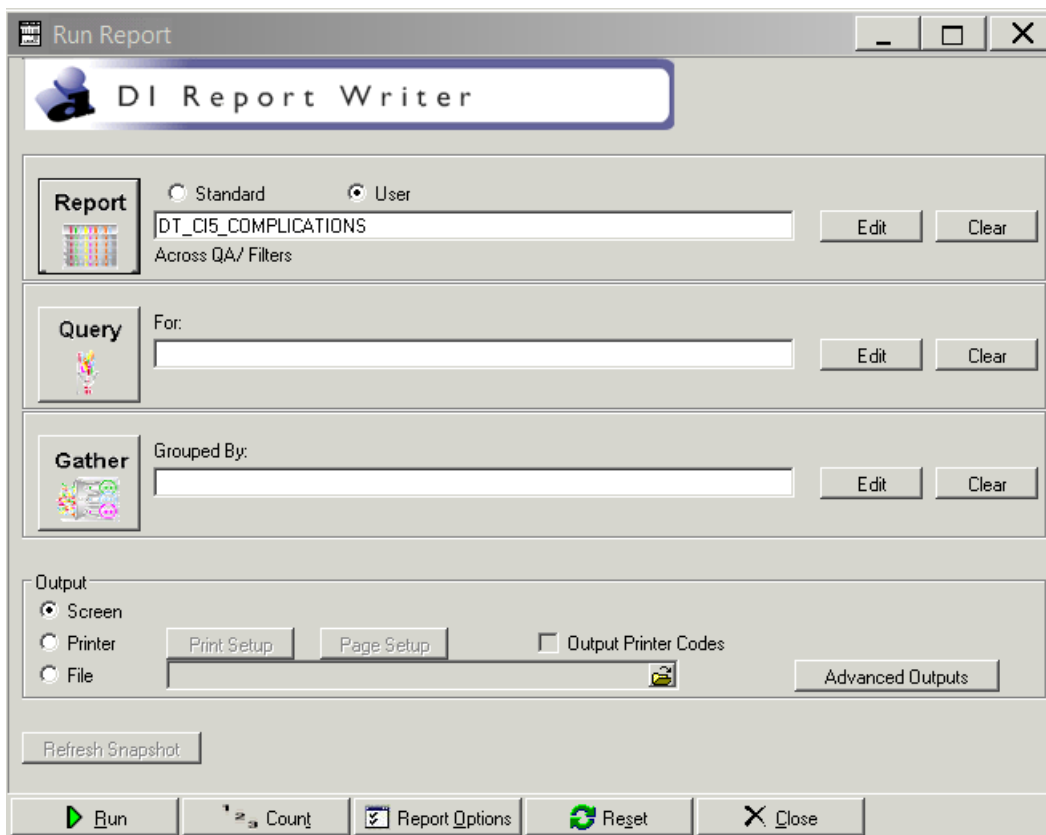
☐ Tabular

☒ CSV ☒ Include Column Headings ☒ Launch Excel

Default Filename:

Across:

20. The Run Report screen will now show the name of the report which you have just created



**Run Report**

**DI Report Writer**

**Report** ☐ Standard ☒ User

Across QA/ Filters

**Query** For:

**Gather** Grouped By:

**Output**

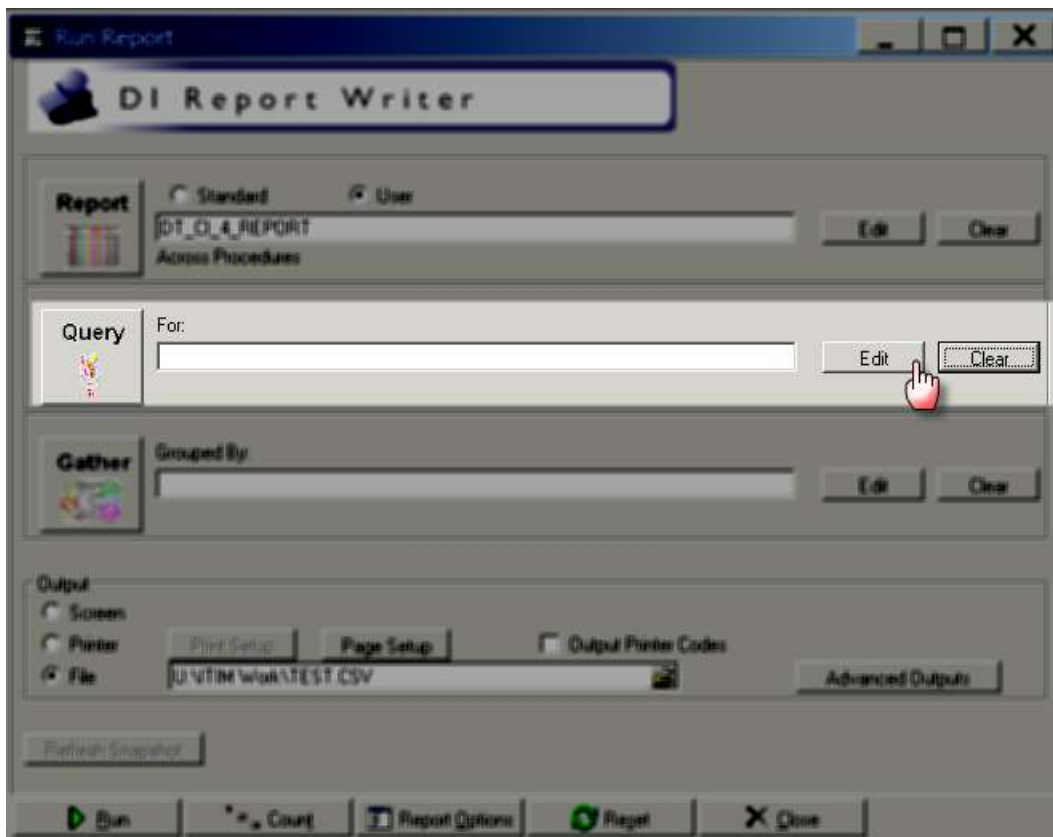
☒ Screen ☐ Printer ☐ File

☐ Output Printer Codes

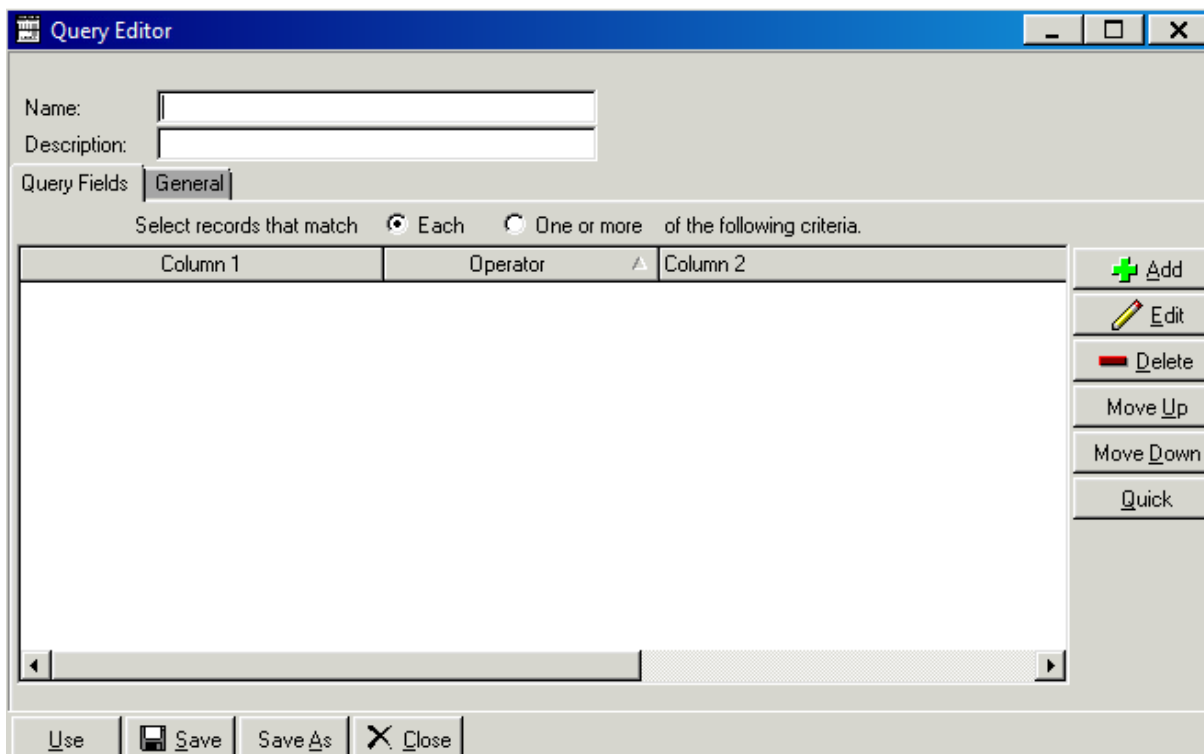
☒ Report Options

## Query

1. Select Query edit button on the main screen on Report Writer



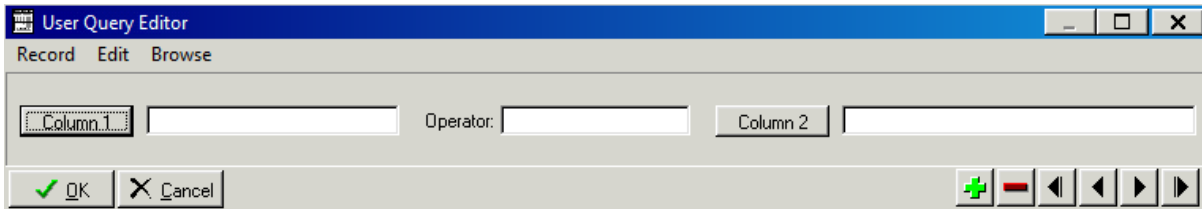
2. Clicking the Query edit button opens the following screen



3. Select the Name field and enter process indicator name Q\_CI5\_COMPLICATIONS
4. Select the description field and enter the description CI5 Complications Query
5. Click the Add button on the right hand side of the screen



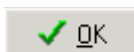
6. Clicking on add button opens the following screen



7. Enter the first query field into Column 1, Operator and Column 2 as per table below
8. Select the green “+” button
9. Repeat steps 7 and 8 adding the fields and their labels from the following table:

Column 1	Operator	Column 2
ANY(FLT_CDE, Select Code(Query)	=	7502
ANY(FLT_CDE, Select Code(Query)	=	6502
ANY(FLT_CDE, Select Code(Query)	=	6503
ANY(FLT_CDE, Select Code(Query)	=	6505
ANY(FLT_CDE, Select Code(Query)	=	3014
ANY(FLT_CDE, Select Code(Query)	=	3008
ANY(FLT_CDE, Select Code(Query)	=	5507
ANY(FLT_CDE, Select Code(Query)	=	5501
ANY(FLT_CDE, Select Code(Query)	=	5509
ANY(FLT_CDE, Select Code(Query)	=	6509

10. Once complete select ok



11. The final query will look like this. Once done click on save button.
12. Click on Use which will close this screen

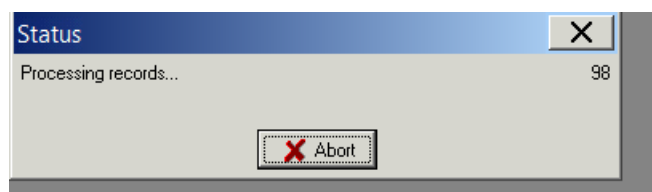
13. Once the report and the query has been filled in, click on Run to run the report

The screenshot shows the 'Run Report' dialog box. The 'Report' section has a radio button for 'Standard' and a selected radio button for 'User'. Below this, a text box contains 'DT\_CI5\_COMPLICATIONS'. The 'Query' section has a 'For:' label and a text box containing 'Q\_CI5\_COMPLICATIONS'. The 'Gather' section has a 'Grouped By:' label and an empty text box. The 'Output' section has three radio buttons: 'Screen' (selected), 'Printer', and 'File'. There are buttons for 'Print Setup', 'Page Setup', 'Output Printer Codes', and 'Advanced Outputs'. A 'Refresh Snapshot' button is at the bottom left. At the bottom, there are buttons for 'Run' (highlighted with a red hand cursor), 'Count', 'Report Options', 'Reset', and 'Close'.

14. The following screen will popup where you can set the filters for your report as shown below.

The screenshot shows the 'Run Report' dialog box with filter settings. The 'Trauma Number' is empty. The 'Arrival Date' is set to '01/01/2016' and the 'Discharge Date' is set to '30/09/2016'. The 'Record Status' is set to 'Active'. The 'Facility' is set to '1212 St Vincent's Hospital'. The 'Population Queries' section is empty. The 'OK' button is highlighted with a red hand cursor. Red arrows point to the date range and facility number fields with the text: 'Give a Date Range as appropriate' and 'Provide your facility Number'.

15. Click on OK and the following screen will popup and a CSV file will be created.



A CSV file will be saved in the location you have specified.

### List of Complication codes

Complication	QA_CODE
Esophageal Intubation	1002
Other Airway Issue	1099
Esophageal Intubation	2501
Extubation, Unintentional	2502
Mainstem Intubation	2503
Acute Respiratory Distress Syndrome (ARDS)	3002
Aspiration/Pneumonia	3003
Empyema	3005
Fat Embolus	3006
Retained Hemothorax	3007
Pneumonia (Infection)	3008
Pneumothorax (Barotrauma)	3009
Pneumothorax (Iatrogenic)	3010
Pneumothorax (Recurrent)	3011
Pneumothorax (Tension)	3012
Pulmonary Embolus	3014
Other Pulmonary	3099
Cardiac Arrest	3502
Myocardial Infarction (MI)	3503
Other Cardiovascular	3599
Dehiscence/Evisceration	4003
Fistula (Other than Pancreatic)	4005
GI Hemorrhage	4006
Other GI	4099
Pancreatitis	4505
Splenic Injury (Iatrogenic)	4506
Other Hepatic/Biliary (Includes Biliary Stasis and Cholelithiasis)	4599
Coagulopathy (Other)	5002
Other Hemotologic	5099
Wound Infection-Cellulitis/Traumatic	5501
Intra-Abdominal Abscess	5503
Necrotizing fascitis	5505
Bacteremia	5507
Surgical Wound Infection (Not Orthopedic)	5509
Other Infection	5599
Renal Failure	6001

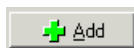
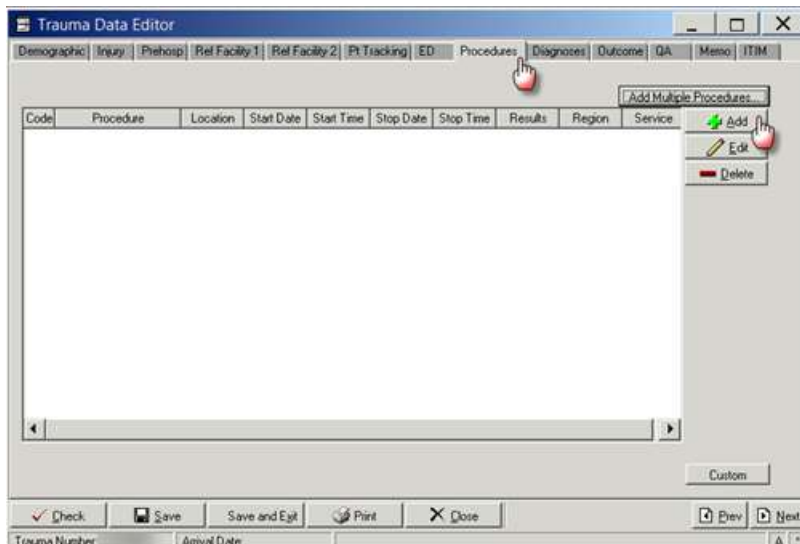


Urinary Tract Infection (UTI) Early	6003
Urinary Tract Infection (UTI) Late	6004
Other Renal/GU	6099
Compartment Syndrome	6501
Pressure Ulcer-Stage 1	6502
Pressure Ulcer-Stage 2	6503
Pressure Ulcer-Stage 3	6504
Pressure Ulcer-Stage 4	6505
Failure of Fracture Fixation	6506
Osteomyelitis	6508
Orthopedic Wound Infection	6509
Rhabdomyolysis	6510
Other Musculoskeletal / Integument	6599
Alcohol/Drug Withdrawal	7001
Diabetes Insipidus	7004
Other Neuorlogic	7099
Deep Vein Thrombosis (DVT), Lower extremity(s)	7502
Graft Infection	7506
Thrombosis and/or Embolus	7507
Other Vascular	7599
Pyschiatric Issue	8001
Anesthetic Complication	8501
Hypothermia	8504
Unexpected Post-Operative Hemorrhage	8508
Managed Care Issue	8510
Referring Facility Complication (Not Prehospital)	8515
Other Miscellaneous Hospital Issue	8599
Other - Hospital Nursing Issues	9104
Fluid resus issues (in hosp)	900502

## Appendix 6: PI - 6 workflow

### Collector workflow

1. Select Procedure tab
2. Select add button below the add multiple procedures button



3. Clicking on Add button opens the following screen

The screenshot shows the 'Procedure' form, which is a window for entering procedure details. The window has a title bar 'Procedure' and a menu bar with options: Record, Edit, and Browse. The form contains the following fields:

- Procedure Code: A text field with a light blue background.
- Location: A dropdown menu.
- Start Date/Time: A date and time picker.
- Stop Date/Time: A date and time picker.
- Results: A dropdown menu.
- Anatomic Region: A dropdown menu.
- Service: A dropdown menu.
- Narrative: A text area.

At the bottom of the form is a toolbar with buttons: Check, Save and Exit, Cancel, a green plus sign, a red minus sign, and four arrow buttons (left, right, up, down). The status bar at the bottom left shows '2 of 2'.

4. Ensure you have filled the mandatory fields as shown below

Procedure Code: 30373-00 Exploratory laparotomy

Location: Operating Room

Start Date/Time: 07/12/2016 10:00

Stop Date/Time: 07/12/2016 13:00

Results: [Dropdown]

Anatomic Region: [Dropdown]

Service: [Dropdown]

Narrative: [Text Area]

Buttons: Check, Save and Exit, Cancel

Status: 1 of 1

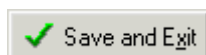
Mandatory fields  
Procedure Code  
Location  
Start Date/Time  
Stop Date/Time

5. Enter the procedure code

6. Enter Location

7. Enter start Date/Time of all procedures

8. Enter any relevant details in relation to the procedure in the injury narrative box



9. Select Save and Exit

10. If patient has returned to the operating room for any other complications that was not anticipated then select "QA Screen"

11. Select Filters

12. Select System Filters

Trauma Data Editor

Demographic Injury Prehosp Ref Facility 1 Ref Facility 2 Pt Tracking ED Procedures Diagnoses Outcome QA Memo ITIM

Filters QA Tracking

Buttons: ACS, System, User Defined

Table:

Type	Co	Occurrence Date	QA
------	----	-----------------	----

Buttons: Edit, Delete

Buttons: Check, Save, Save and Exit, Print, Close, Prev, Next

Status: Trauma Number, Arrival Date

13. Clicking on System filter button opens the following screen

System Filters

- ☐ Missed injuries (Filter 9007)
- ☐ Unexpected ICU readmission (Filter 8513)
- ☐ Unexpected return to OR (Filter 8506)
- ☐ Death - Non preventable (Filter 8540)
- ☐ Death Potentially Prevent (Filter 8550)
- ☐ Death - Preventable (Filter 8530)

If Other

Date

☐ QA Tracking

OK Cancel

14. Click the box “unexpected return to OR” or alternatively enter 8506 code

15. Enter “Date”

System Filters

- ☐ Missed injuries (Filter 9007)
- ☐ Unexpected ICU readmission (Filter 8513)
- ☒ Unexpected return to OR (Filter 8506)
- ☐ Death - Non preventable (Filter 8540)
- ☐ Death Potentially Prevent (Filter 8550)
- ☐ Death - Preventable (Filter 8530)

If Other

8506 Unexpected Return to OR

Date 07/12/2016

☐ QA Tracking

OK Cancel

Select unexpected return to OR(filter 8506)

or

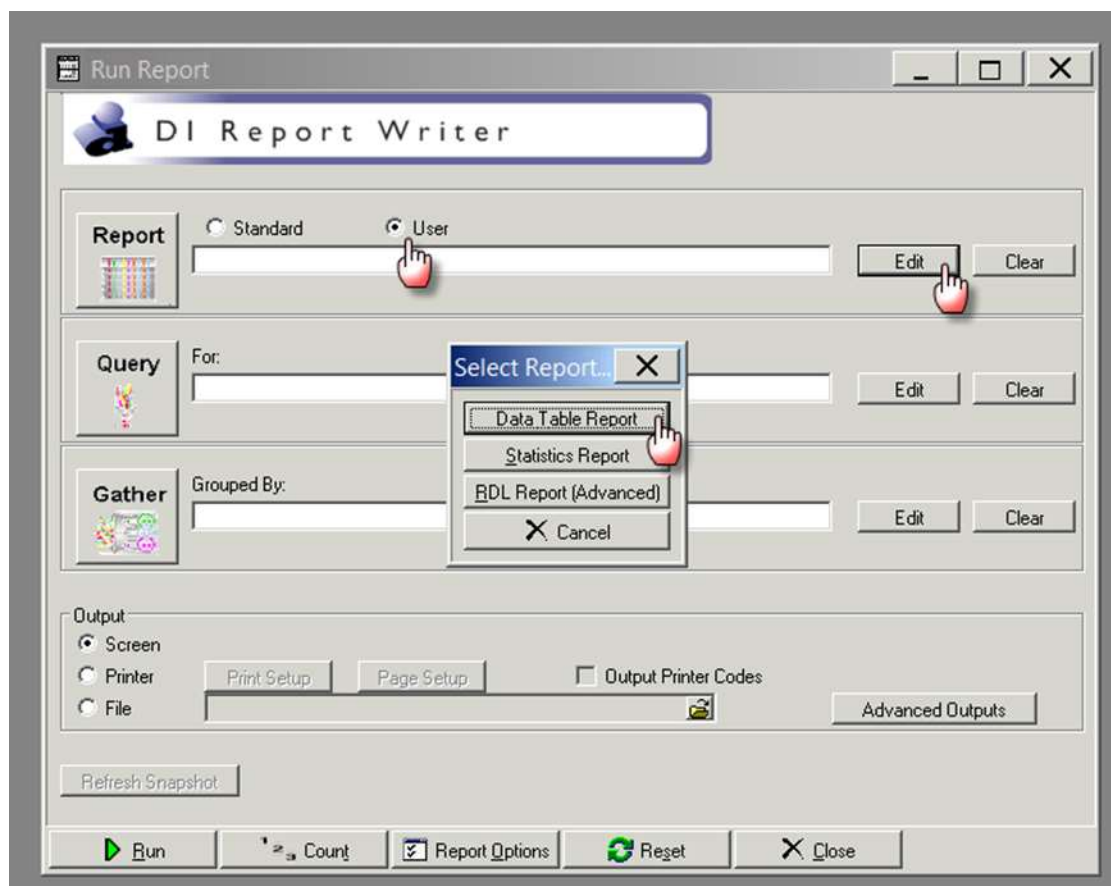
Enter 8506 code here

16. Select OK

## Report Writer workflow

### Data Table Report

1. Open Report Writer
2. Click on Report
3. Select User radio button and Click on Edit
4. A popup screen opens up( as shown in the screenshot)
5. Click on Data Table Report button in this popup screen



6. After you click Data Table Report ( in step 5) the following screen appears
7. Fill in the Name and Description fields as shown in the screenshot
8. A popup screen opens up which allows you to add Fields in your report
9. Select the Name field and enter process indicator name DT\_CI6\_UNEXPTED\_RTN\_OR
10. Select the description field and enter CI6\_unexpected return to OR
11. Select add
12. Enter the first the Field Name, description and format per table below
13. Select the green “+” button

14. Repeat steps 12 and 13 adding the fields and their labels from the following table:

Field	Label	Width	Format
INST_NUM	Facility Number		
INST_NUM_AS_TEXT	Facility Name		
EDA_EVENT	Facility Arrival_Y4	20	D0E1Z0
AGE_RPT	Age		
E_CODE_1_AS_TEXT	Mechanism		
ISS_RPT	ISS		
DIS_STS_RPT_AS_TEXT	Outcome		
A_PROC_PR_AS_TEXT	Procedure Code		

The screenshot shows the 'CI6\_UNEXPTD\_RTN\_OR - Data Table Editor' window. At the top, the 'Name' field is 'CI6\_UNEXPTD\_RTN\_OR' and the 'Description' is 'CI6\_unexpected return to OR'. Below this, there are tabs for 'Data Elements', 'Sort Order', and 'General'. The 'Data Elements' tab is active, showing a list of fields on the left. The main area displays the details for the selected field, 'INST\_NUM', with a label of 'Facility Number'. The width is set to 20 and the format is D0E1Z0. The window also includes buttons for 'Add', 'Edit', 'Delete', 'Move Up', 'Move Down', 'Quick Add', 'OK', 'Cancel', 'Use', 'Save', 'Save As', and 'Close'.

15. Click on General tab and click CSV option and also select Include Column Headings tickbox

CI6\_UNEXPTD\_RTN\_OR - Data Table Editor

Name: CI6\_UNEXPTD\_RTN\_OR  
Description: CI6\_unexpected return to OR

Data Elements | Sort Order | **General**

Title:

SubQuery:

Output Type  
☐ Tabular  
☒ CSV ☒ Include Column Headings ☒ Launch Excel

Default Filename:

Across:

16. Click on Save

17. Click on Use which will close this screen

18. Click on the File radio button in Output section

Run Report

DI Report Writer

Report ☐ Standard ☒ User  
CI6\_UNEXPTD\_RTN\_OR    
Across Procedures

Query For:

Gather Grouped By:

Output  
☐ Screen ☐ Printer ☒ File   ☐ Output Printer Codes

- ## Query

- 
- The screenshot shows the 'Run Report' dialog box in the 'DI Report Writer' application. The dialog is titled 'Run Report' and has a main title 'DI Report Writer'. It contains three main sections: 'Report', 'Query', and 'Gather'. The 'Report' section has two radio buttons: 'Standard' and 'Query'. The 'Query' section has a text field and two buttons: 'Edit' and 'Clear'. The 'Gather' section has a text field and two buttons: 'Edit' and 'Clear'. The 'Output' section has three radio buttons: 'Screen', 'Printer', and 'File'. The 'File' radio button is selected, and the text field next to it contains the path 'C:\WINNT\WinNTCD\_1\_SchemaFinalReport.CSV'. There is also an 'Advanced Output' button. At the bottom of the dialog are five buttons: 'Run', 'Cancel', 'Report Options', 'Report', and 'Close'.

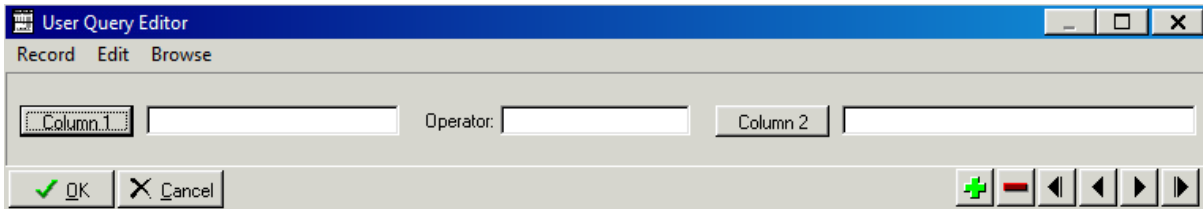
- 
- Query Editor
- Name:
- Description:
- Query Fields **General**
- Select records that match ☒ Each ☐ One or more of the following criteria.
- | Column 1 | Operator | Column 2 |
|----------|----------|----------|
|----------|----------|----------|
- + Add
- Edit
- Delete
- Move Up
- Move Down
- Quick
- Use Save Save As Close



3. Select the Name field and enter process indicator name **Q\_UNEXPECTED\_RTN\_OR**
4. Select the description field and enter the description Unexpected return to OR
5. Click the Add button on the right hand side of the screen



6. Clicking on add button opens the following screen



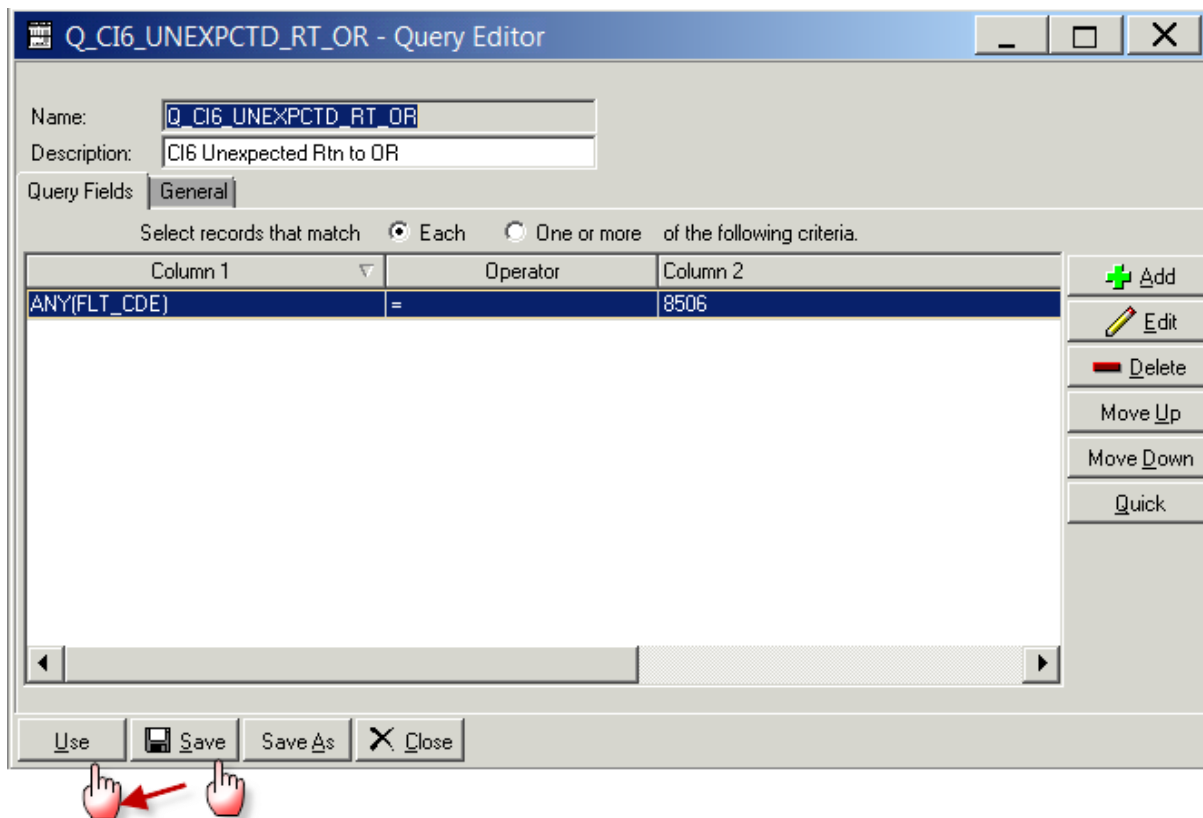
7. Enter the first query field into Column 1, Operator and Column 2 as per table below
8. Select the green “+” button
9. Repeat steps 7 and 8 adding the fields and their labels from the following table:

Column 1	Operator	Column 2
ANY(FLT_CDE, Select Code(Query)	=	8506

10. Once complete select Ok on the User Query Editor screen



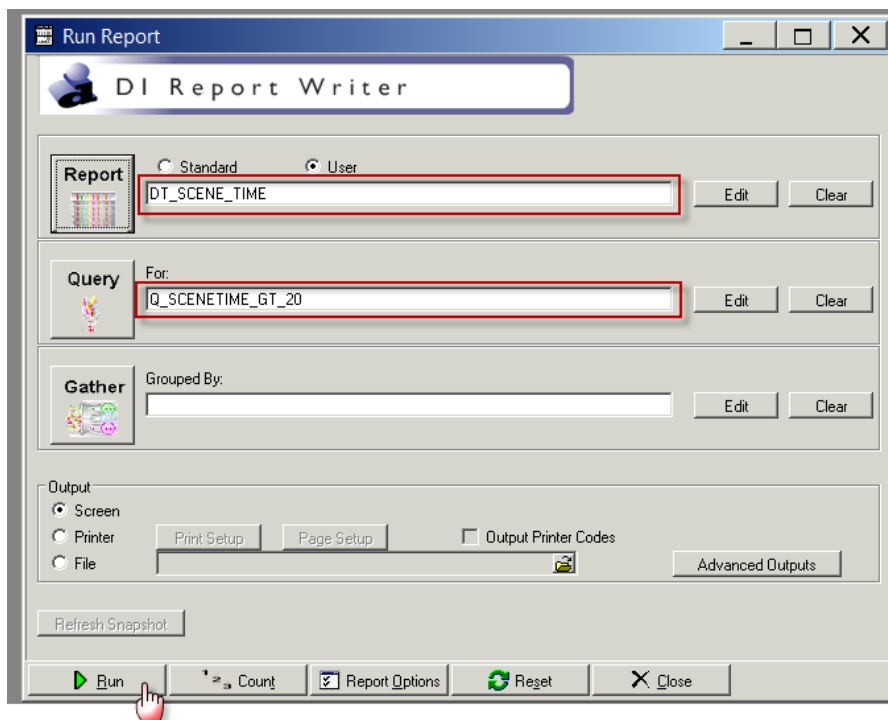
11. The final query will look like this. Once done click on save button.



12. Click Save

13. Click on Use which will close this screen

14. Once the report and the query has been filled in, click on Run to run the report



15. The following screen will popup where you can set the filters for your report as shown below.

Run Report

DI Report Writer

Run Report

Trauma Number: [ ] to [ ]

Arrival Date: 01/01/2016 to 30/09/2016

Discharge Date: / / to / /

Record Status: ☐ Active ☐ Closed

Facility: 1212 St Vincent's Hospital

Population Queries

Query	Clear	
Query	Clear	
Query	Clear	

OK Reset Cancel

Run Report

Run Count Report Options Report Close

Give a Date Range as appropriate  
Provide your facility Number

16. Click on OK and the following screen will popup and a CSV file will be created.

Status

Processing records... 98

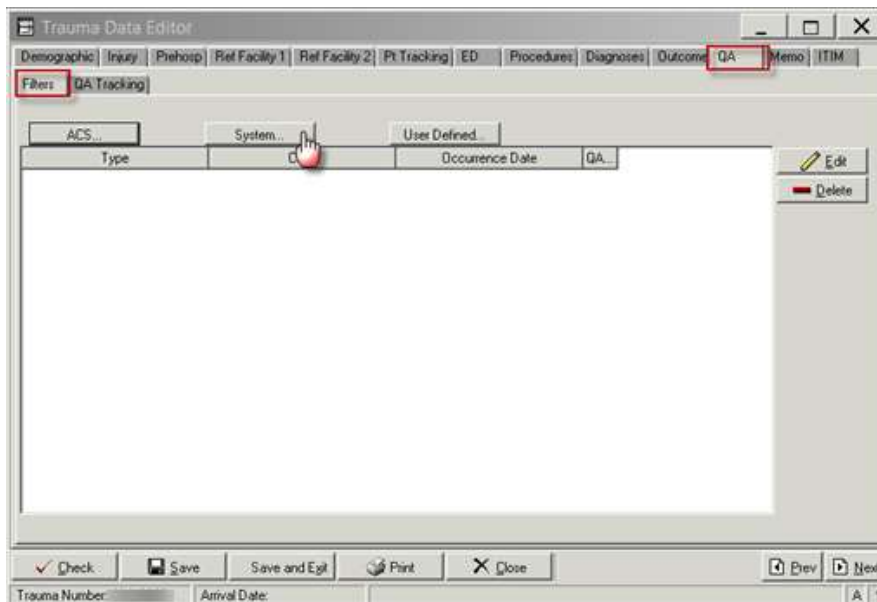
Abort

A CSV file will be saved in the location you have specified.

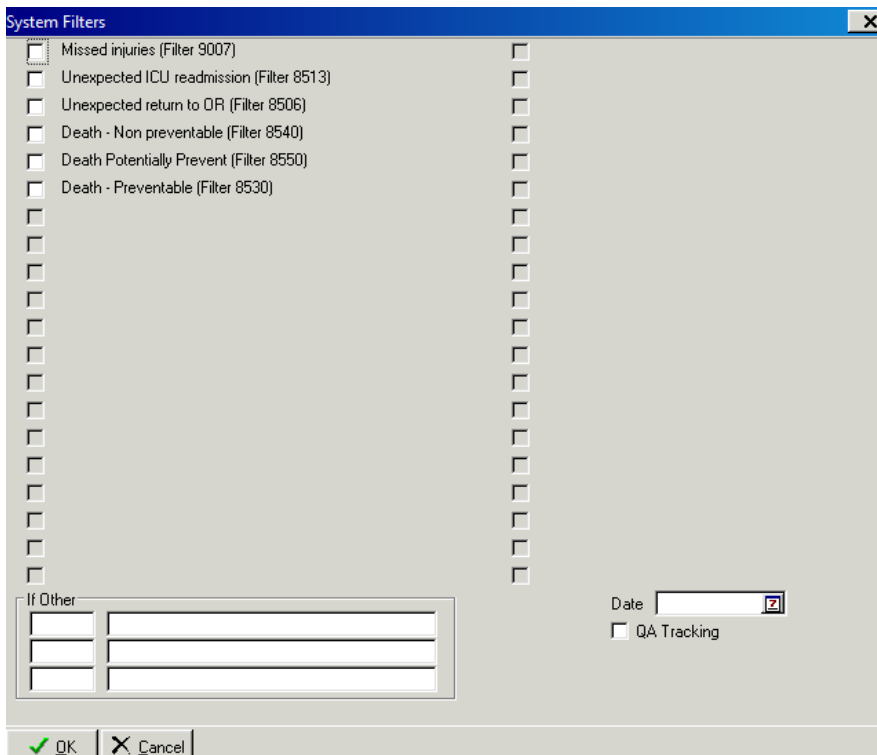
## Appendix 7: PI - 7 workflow

### Collector workflow

1. Select QA tab
2. Select Filters
3. Click on System... button



4. Clicking on system filter button opens the following screen



5. Click the box "Missed injuries" box or enter 9007 in the other field
6. Enter "Date"



## Report Writer workflow

### Data table report

1. Open Report Writer.
2. Click on Report
3. Select User radio button and Click on Edit
4. A popup screen opens up( as shown in the screenshot)
5. Click on Data Table Report button in this popup screen



6. After you click Data Table Report ( in step 5) the following screen appears
7. Fill in the Name and Description fields as shown in the screenshot
8. A popup screen opens up which allows you to add Fields in your report
9. Select the Name field and enter process indicator name DT\_MISSED\_INJURY
10. Select the description field and enter Missed injury
11. Select add
12. Enter the first the Field Name, description and format per table below
13. Select the green "+" button

14. Repeat steps 12 and 13 adding the fields and their labels from the following table:

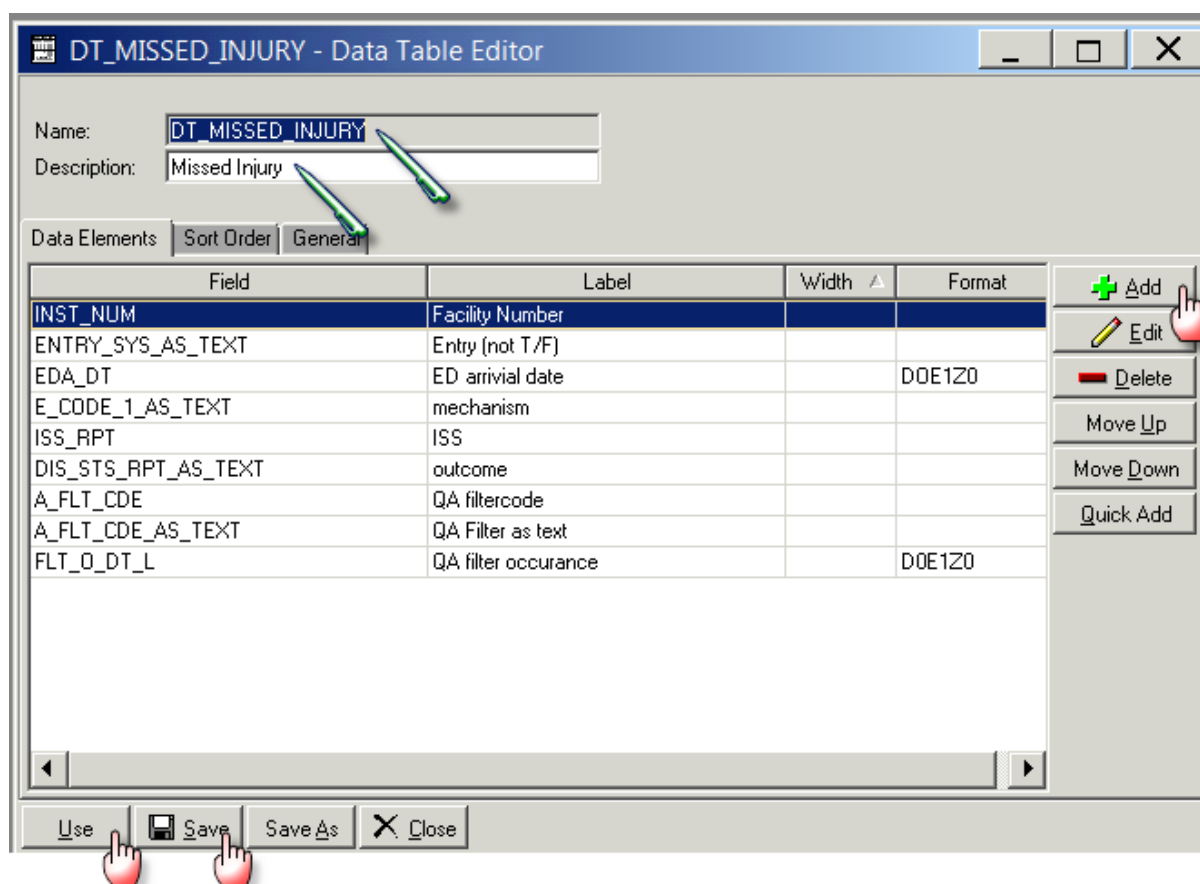
Fields	Description	Format
INST_NUM	Facility number	
INST_NUM_AS_TEXT	Facility Name	
EDA_DT	Facility Arrival Date	D0E1Z0
ED_TM	Facility Arrival Time	
AGE_RPT	Age	
E_CODE_1_AS_TEXT	mechanism	
ISS_RPT	ISS	
DIS_STS_RPT_AS_TEXT	Outcome	
A_FLT_CDE	QA filter code	
A_FLT_CDE_AS_TEXT	QA filter as text	
FLT_O_DT_L	QA filter occurrence date	D0E1Z0

15. Once complete select ok

16. Click on General tab and

17. click CSV option and also select Include Column Headings tickbox

18. Click Save



19. Click on Use which will close this screen

DT\_MISSED\_INJURY - Data Table Editor

Name:

Description:

Data Elements | Sort Order | General

Title:

SubQuery:

Output Type

☐ Tabular

☒ CSV ☒ Include Column Headings ☒ Launch Excel

Default Filename:

Across:

Use Save Save As Close

20. Click on the File radio button in Output section
21. Click on the File Folder button will open the "Select File" screen
22. Provide the file name ( also put a .CSV) at the end of file name
23. Click on Open and the "Select File" screen will close and the name of the file will appear in the Run Report" screen

Run Report

DI Report Writer

Report ☐ Standard ☒ User

DT\_MISSED\_INJURY Edit Clear

Query For:  Edit Clear

Gather Grouped By:  Edit Clear

Output

☐ Screen

☐ Printer   ☐ Output Printer Codes

☒ File

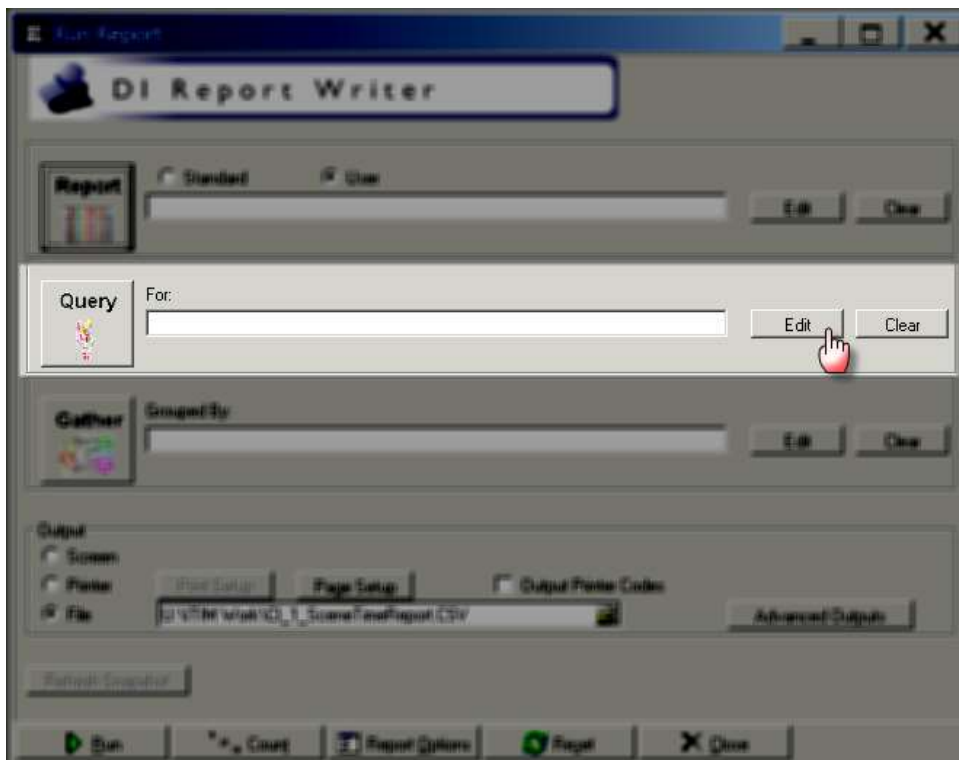
Refresh Snapshot

Run Count Report Options Reset Close

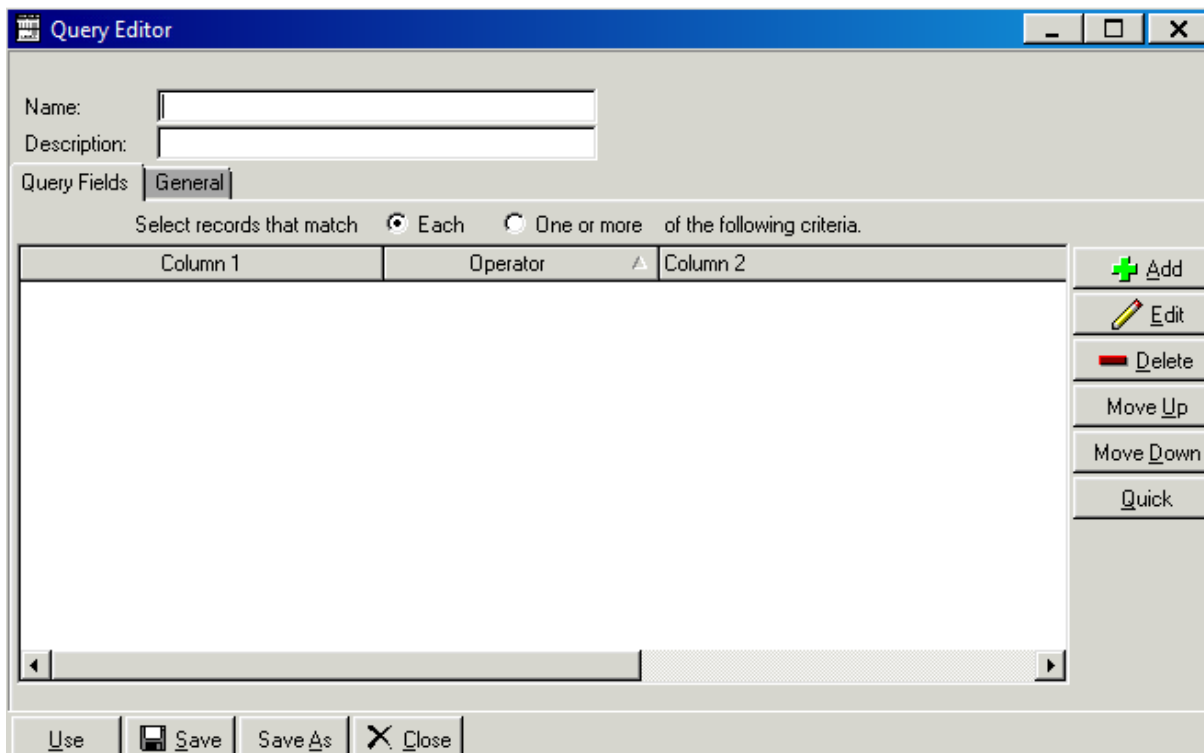


## Query

1. Select Query edit button on the main screen on Report Writer

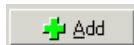


2. Clicking the Query edit button opens the following screen

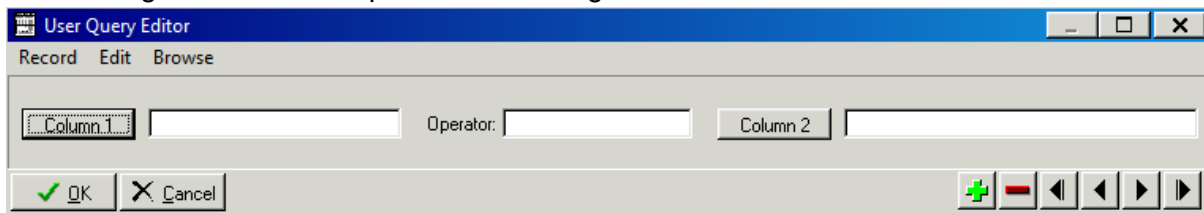


3. Select the Name field and enter process indicator name **Q\_MISSED\_INJURY**
4. Select the description field and enter the description Missed injury

5. Click the Add button on the right hand side of the screen



6. Clicking on add button opens the following screen



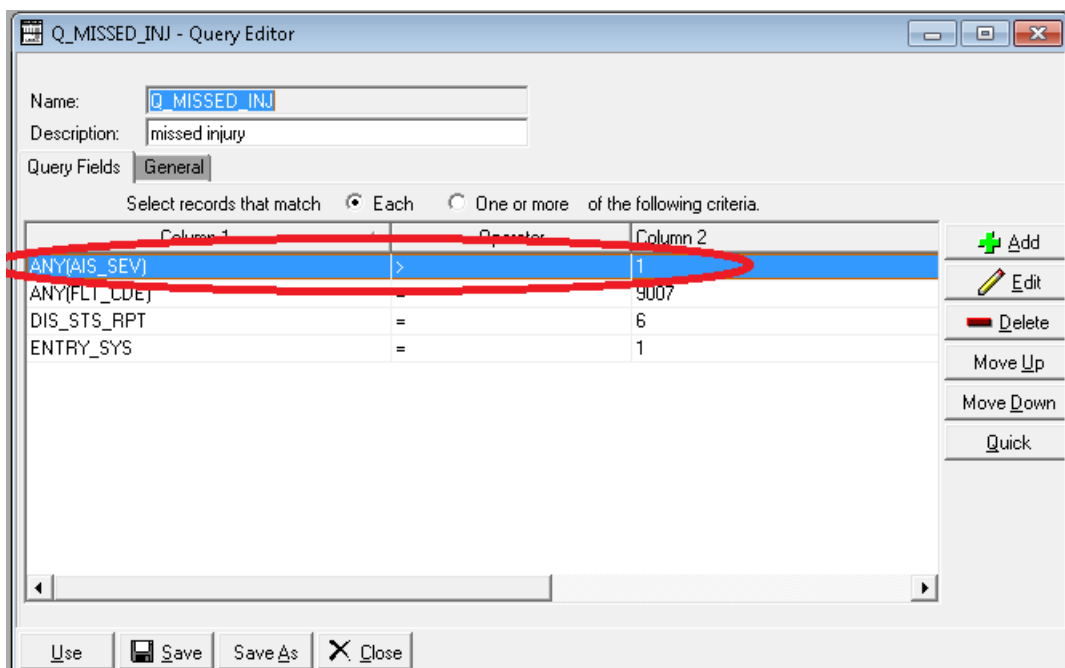
7. Enter the first query field into Column 1, Operator and Column 2 as per table below

8. Select the green “+” button

9. Repeat steps 9 and 10 adding the fields and their labels from the following table:

Column 1	Operator	Column 2
ANY(FLT_CDE)	=	9007
DIS_STS_RPT	=	6
ENTRY_SYS	=	1
ANY(AIS_SEV)	>	1

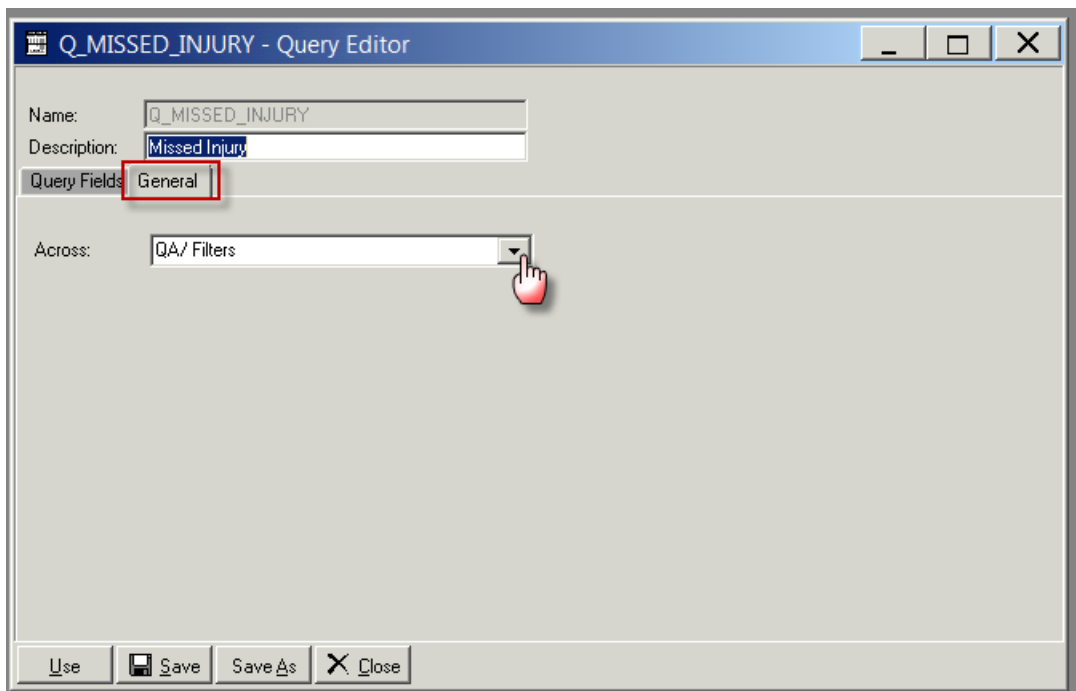
10. Once complete select ok



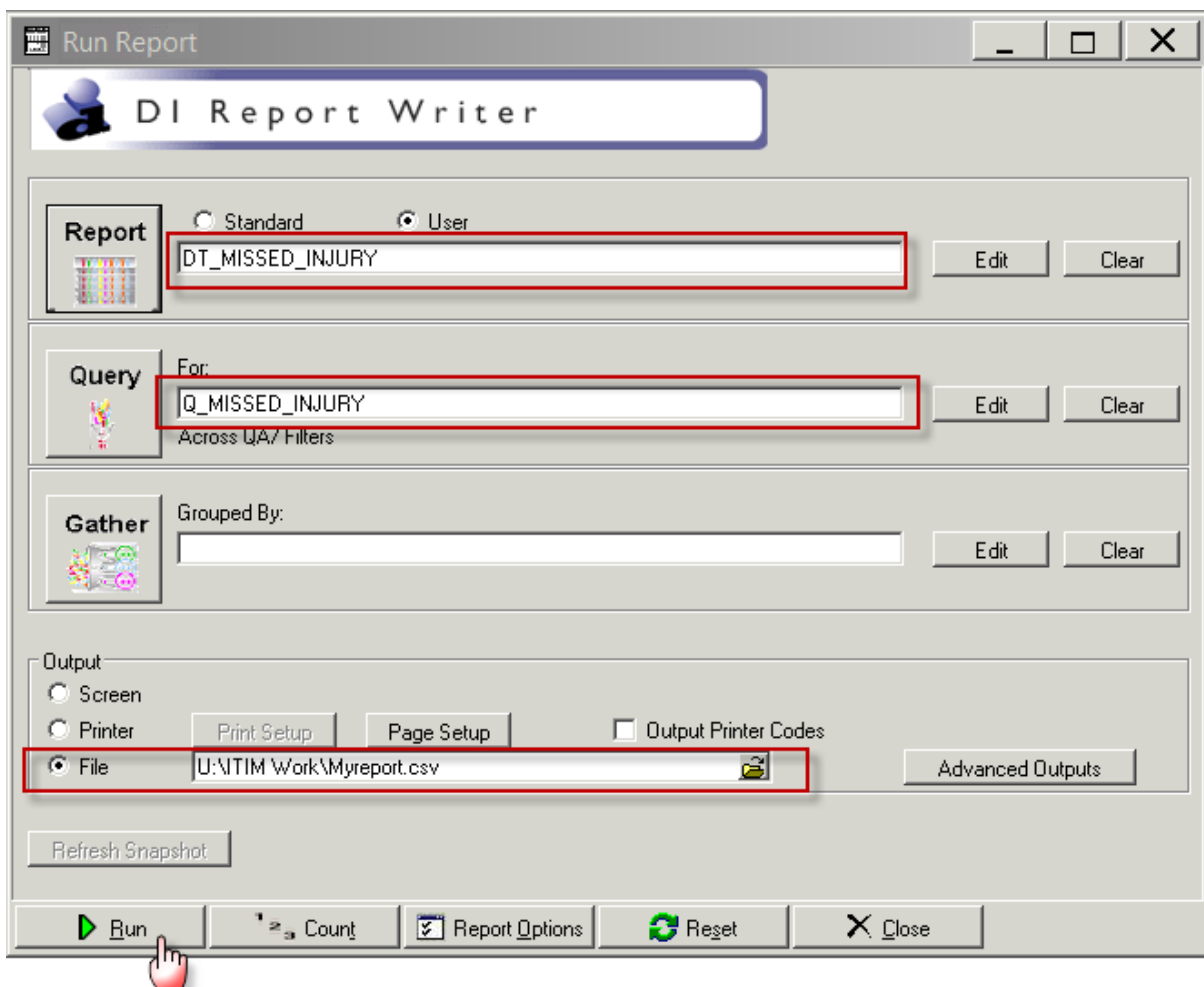
11. Click on General tab and Select the QA/Filters from the drop down box menu

12. Click Save

13. Click on Use which will close this screen



14. Once the report and the query has been filled in, click on Run to run the report



15. The following screen will popup where you can set the filters for your report as shown below.

Run Report

DI Report Writer

Run Report

Trauma Number: to

Arrival Date: 01/01/2016 to 30/09/2016

Discharge Date: / / to / /

Record Status: ☐ Active ☐ Closed

Facility: 1212 St Vincent's Hospital

Population Queries

Query	Clear	
Query	Clear	
Query	Clear	

OK Reset Cancel

Run Report

Run Count Report Reset Close

Give a Date Range as appropriate

Provide your facility Number

16. Click on OK and the following screen will popup and a CSV file will be created.

Status

Processing records... 98

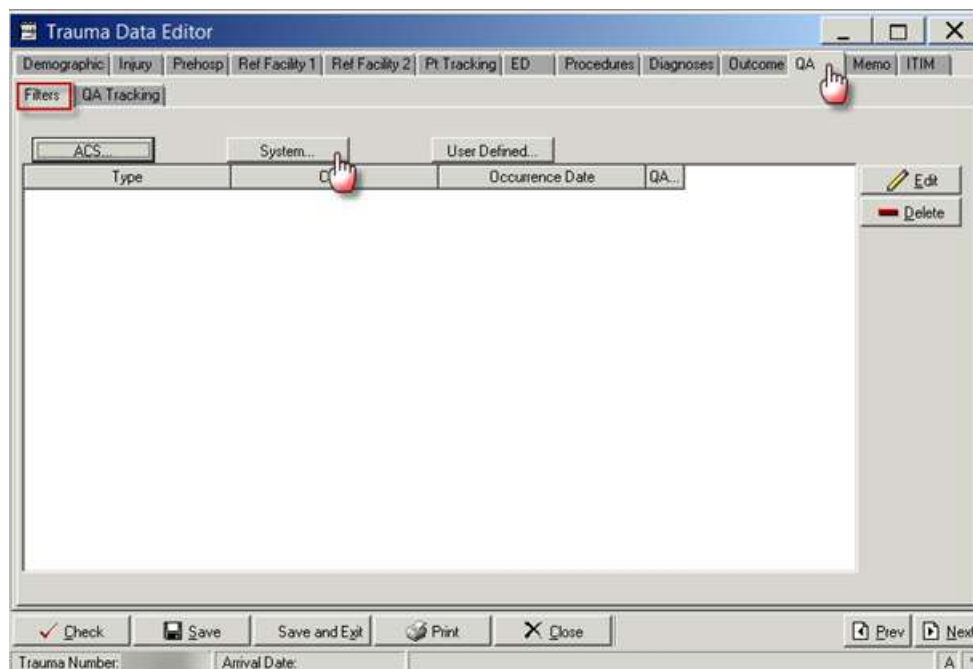
Abort

17. A CSV file will be saved in the location you have specified.

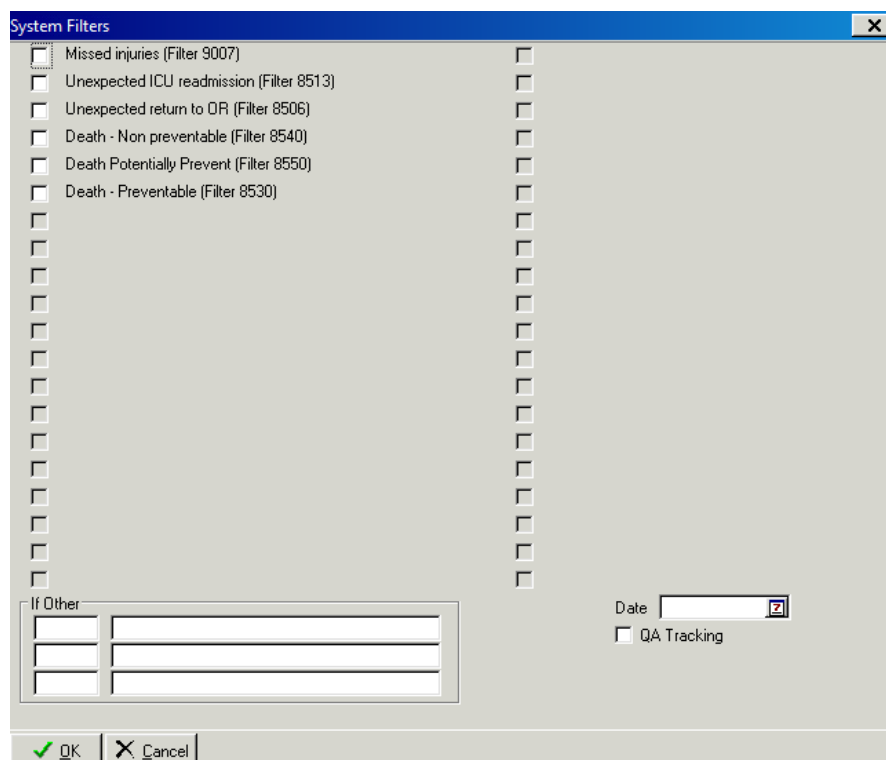
## Appendix 8: PI - 8 workflow

### Collector workflow

1. Select QA tab
2. Select Filters
3. Click on System... button



4. Clicking on system filter button opens the following screen

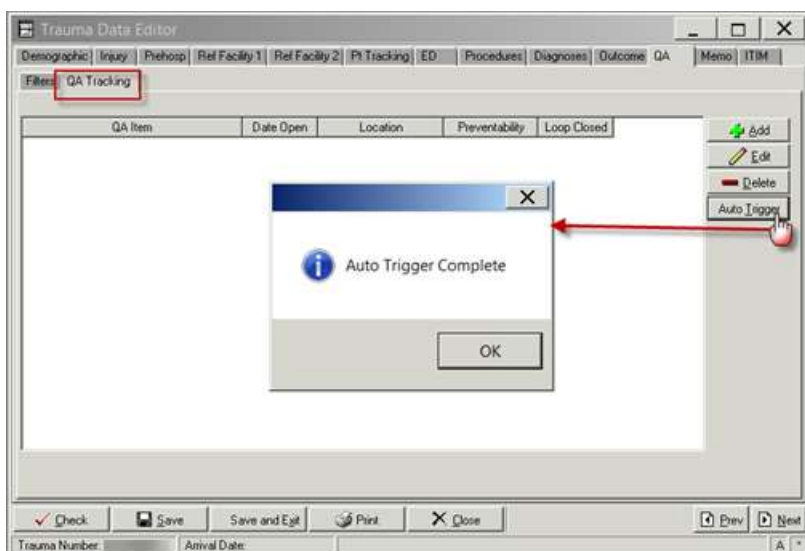


5. Click the box correlating to the classification of death.
  - a. "Death Potentially Prevent" box or enter 8550 in the If Other field

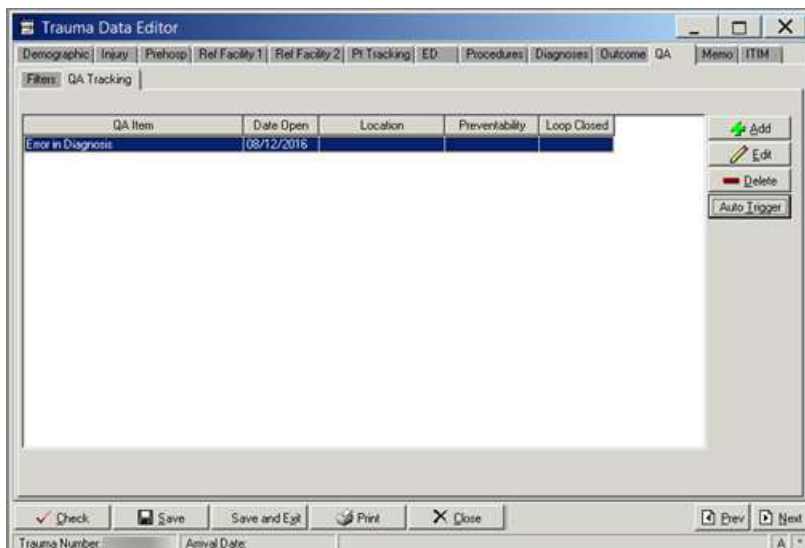
- b. "Death Preventable" box enter 8530 in the If Other field
  - c. "Death non preventable" or enter 8540 in the If Other field
6. Enter "Date" and select QA Tracking

*Note: when a System Filter item has been selected, the date entered and the QA tracking boxed ticked, selecting auto-trigger tab on the QA tracking screen will populate the item marked for tracking into the QA tracking screen.*

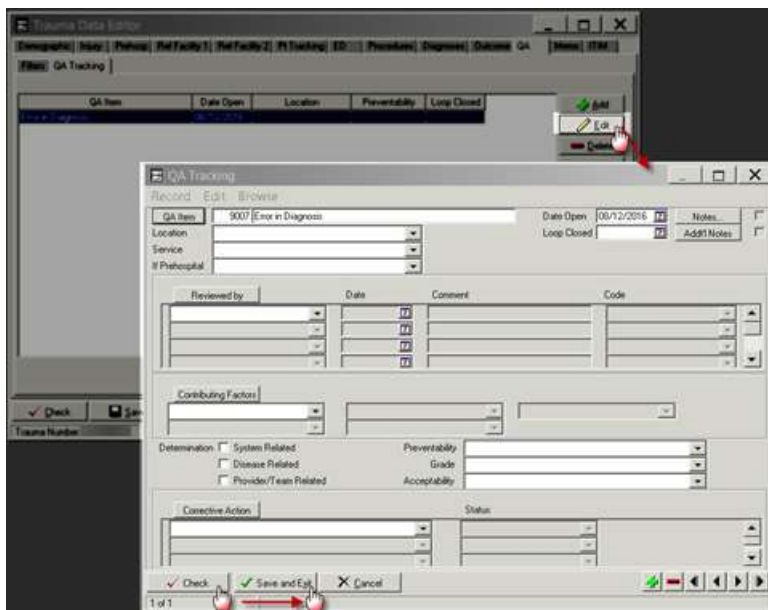
7. Select - QA tracking Tab
8. Click Auto Trigger (see note above)



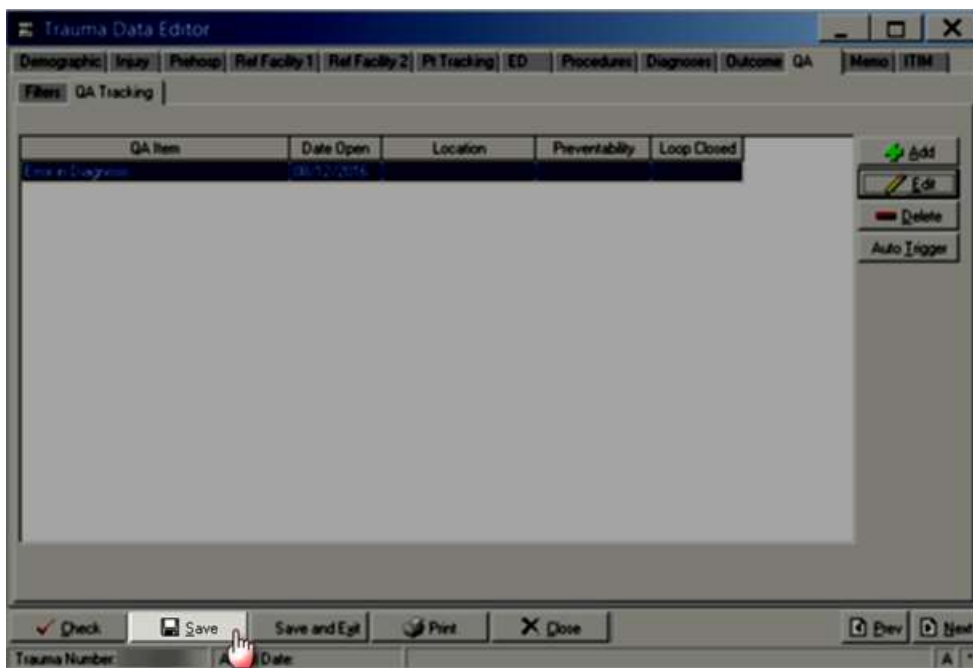
9. The process Indicator Item will be populated as shown below



10. Select CI and click edit
11. Clicking on edit button opens the following screen
12. Click Check
13. Click Save and Exit and the QA Tracking screen will close.



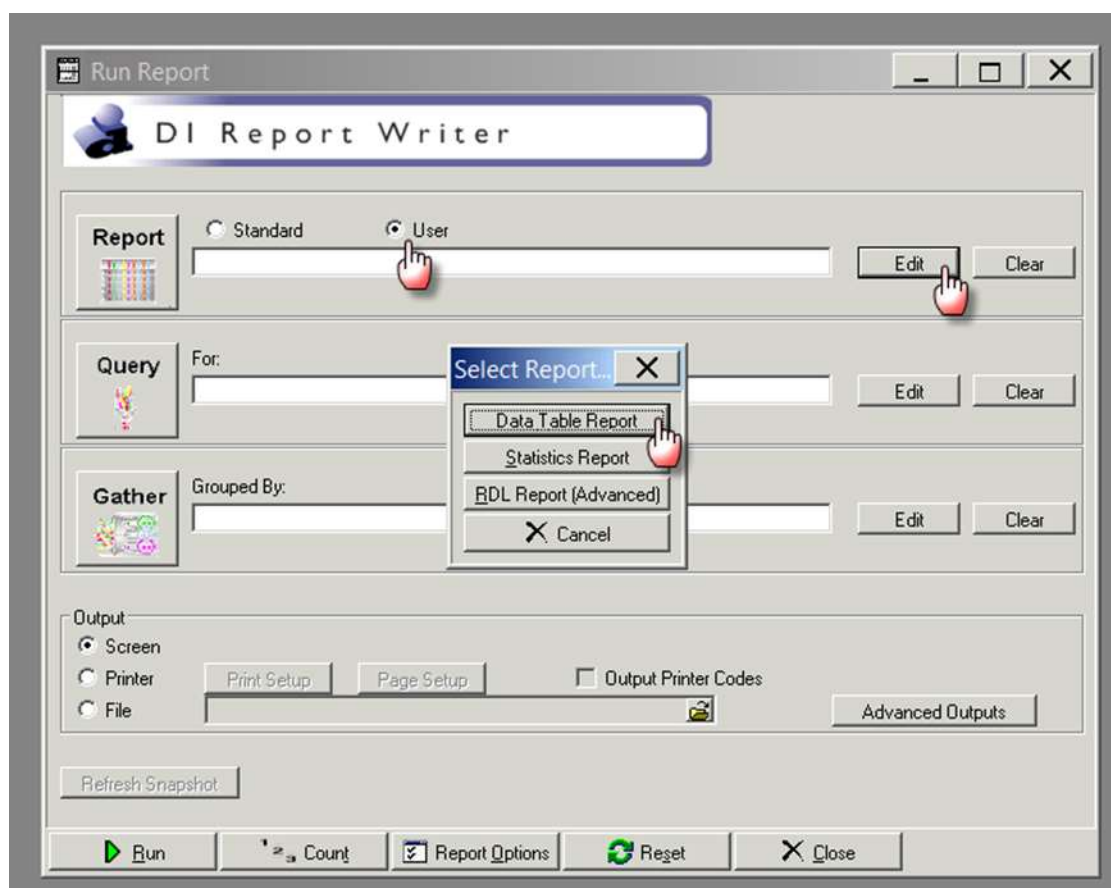
14. Click Save on the following screen



## Report Writer workflow

### Data table report

1. Open Report Writer.
2. Click on Report
3. Select User radio button and Click on Edit
4. A popup screen opens up (as shown in the screenshot)
5. Click on Data Table Report button in this popup screen



6. After you click Data Table Report ( in step 5) the following screen appears
7. Fill in the Name and Description fields as shown in the screenshot
8. A popup screen opens up which allows you to add Fields in your report
9. Select the Name field and enter process indicator name DT\_PREV\_MORTALITIES
10. Select the description field and enter CI8 Preventable Mortalities
11. Select add
12. Enter the first the Field Name, description and format per table below
13. Select the green “+” button



14. Repeat steps 12 and 13 adding the fields and their labels from the following table:

Fields	Description	Format
INST_NUM	Facility number	
INST_NUM_AS_TEXT	Facility Name	
EDA_DT	Facility Arrival Date	D0E1Z0
ED_TM	Facility Arrival Time	
AGE_RPT	Age	
E_CODE_1_AS_TEXT	mechanism	
ISS_RPT	ISS	
DIS_STS_RPT_AS_TEXT	Outcome	
A_FLT_CDE	QA filter code	
A_FLT_CDE_AS_TEXT	QA filter as text	
FLT_O_DT_L	QA filter occurrence date	D0E1Z0
QA_ITEM_L_AS_TEXT	QA item as text	
QA_ACPT_L_AS_TEXT	QA item acceptability	
ANY(QA_OPEN_DT)	QA Opened	D0E1Z0
ANY(QA_CLSD_DT)	QA Closed	D0E1Z0

DT\_PREV\_MORTALITIES - Data Table Editor

Name: DT\_PREV\_MORTALITIES

Description: C18 Preventable Mortalities

Data Elements | Sort Order | General

Field	Label	Width	For
AGE_RPT	Age		
ANY(QA_CLSD_DT)	QA Closed		D0E1Z0
ANY(QA_OPEN_DT)	QA Opened		D0E1Z0
A_FLT_CDE	QA Filter Code		
A_FLT_CDE_AS_TEXT	QA Filter code as text		
DIS_STS_RPT_AS_TEXT	Outcome		
EDA_DT	Facility Arrival Date		D0E1Z0
ED_TM	Facility Arrival Time		
E_CODE_1_AS_TEXT	Mechanism		
FLT_O_DT_L	QA filter occurrence date		D0E1Z0
INST_NUM	Facility Number		
INST_NUM_AS_TEXT	Facility Name		
ISS_RPT	ISS		
QA_ACPT_L_AS_TEXT	QA item acceptability		
QA_ITEM_L_AS_TEXT	QA item as text		

Buttons: Add, Edit, Delete, Move Up, Move Down, Quick Add

Buttons: Use, Save, Save As, Close

15. Click on General

DT\_PREV\_MORTALITIES - Data Table Editor

Name: DT\_PREV\_MORTALITIES

Description: CI8 Preventable Mortalities

Data Elements | Sort Order | **General**

Title:

SubQuery:

Output Type

☒ Tabular

☒ CSV

☒ Include Column Headings

☒ Launch Excel

Default Filename:

Across: QA/ Filters

Use Save Save As Close

16. Click Save

17. Click on Use which will close this screen

18. Click on the File radio button in Output section

19. Click on the File Folder button will open the "Select File" screen

20. Provide the file name (also put a .CSV) at the end of file name

21. Click on Open and the "Select File" screen will close and the name of the file will appear in the "Run Report" screen

Run Report

DI Report Writer

Report ☐ Standard ☒ User

DT\_CI8\_PRIV\_MODALITIES

Across QA/ Filters

Query For: Q\_PREVENT\_MODALITIES

Across QA/ Filters

Gather Grouped By:

Output ☐ Screen ☐ Printer ☒ File

Print Setup Page Setup ☐ Output Printer Codes

U:\ITIM\Work\Myreport.csv

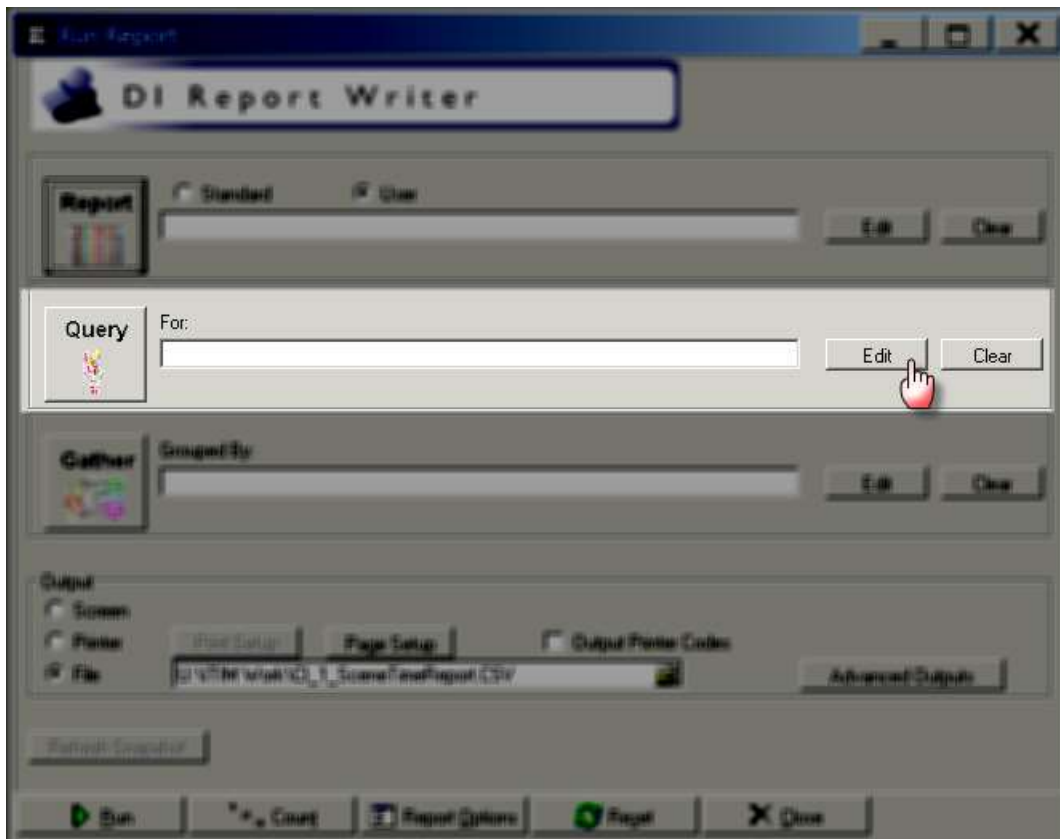
Advanced Outputs

Refresh Snapshot

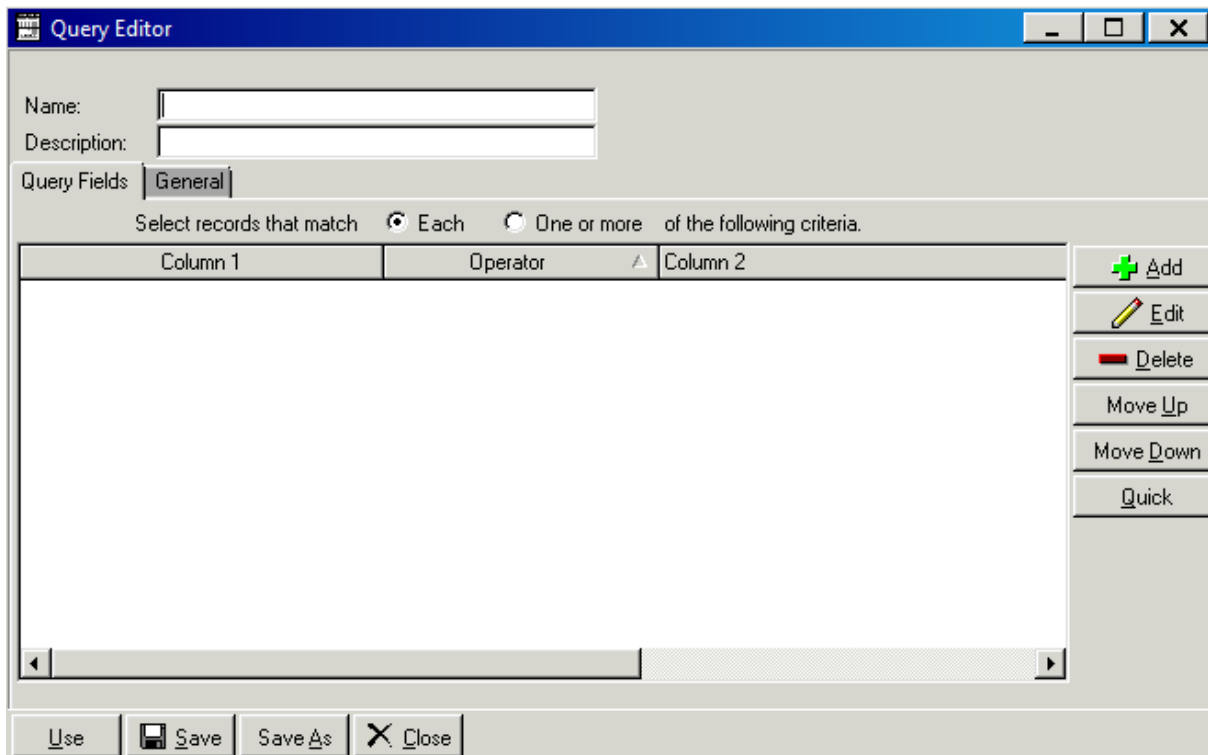
Run Count Report Options Reset Close

## Query

1. Select Query edit button on the main screen on Report Writer

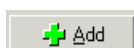


2. Clicking the Query edit button opens the following screen



3. Select the Name field and enter process indicator name Q\_PREVENT\_MORT

4. Select the description field and enter the description Preventable Mortalities
5. Click the Add button on the right hand side of the screen



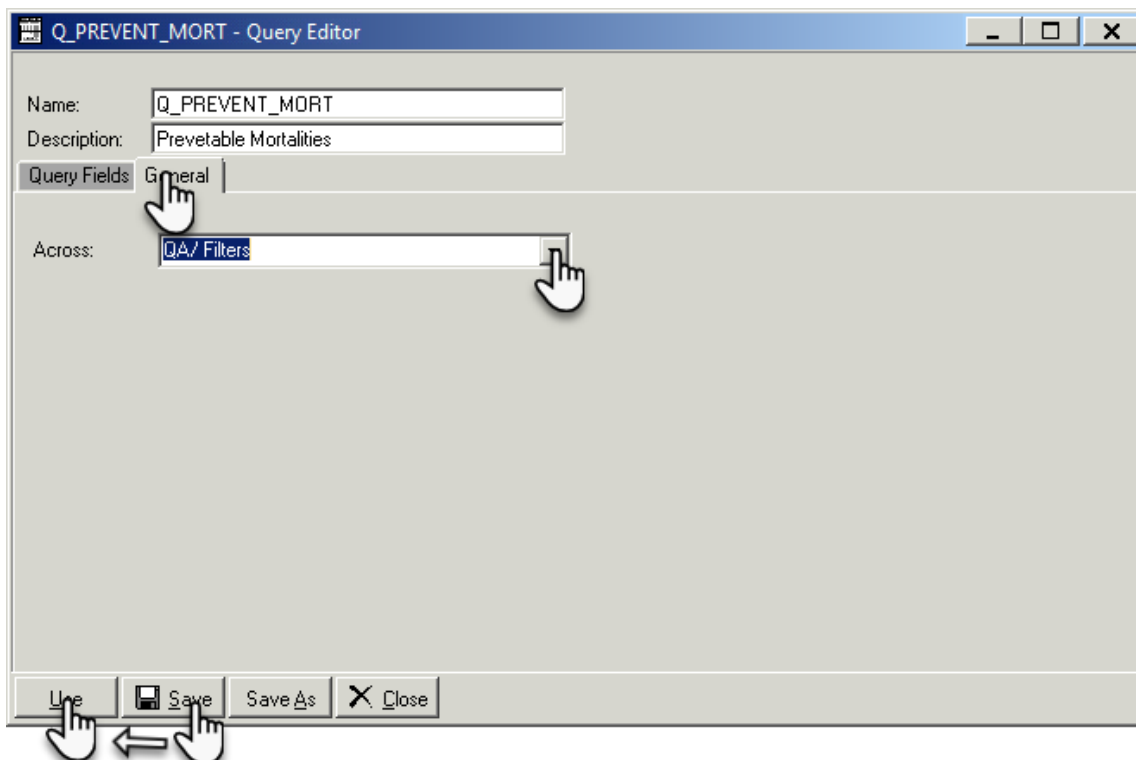
6. Clicking on add button opens the following screen

7. Enter the first query field into Column 1, Operator and Column 2 as per table below
8. Select the green “+” button
9. Repeat steps 7 and 10 adding the fields and their labels from the following table:

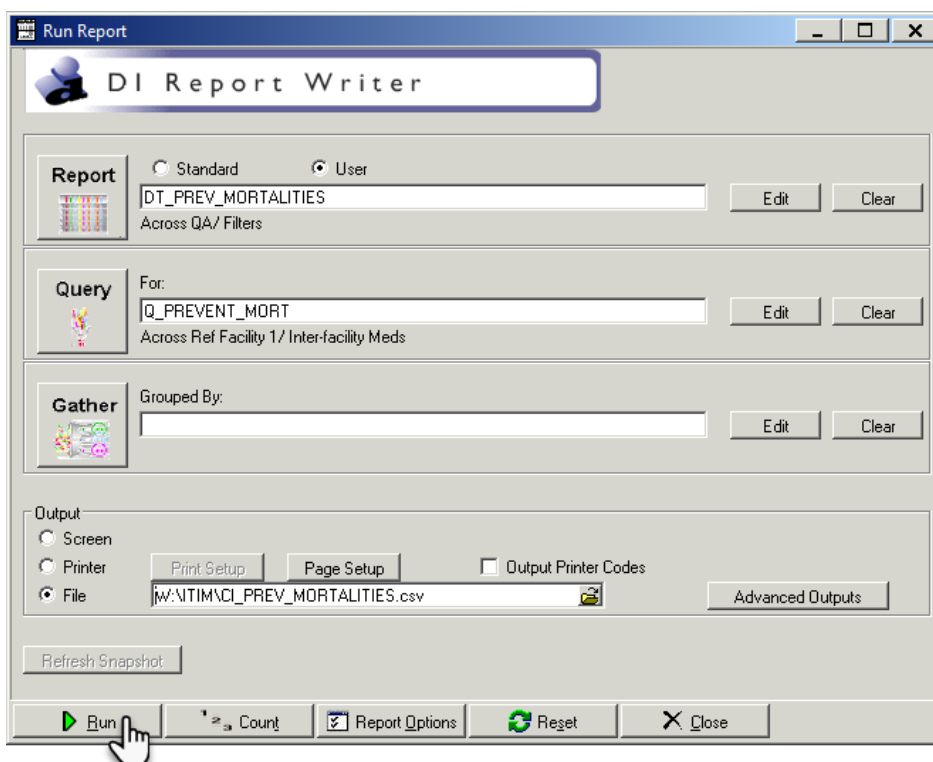
Column 1	Operator	Column 2
ANY(FLT_CDE)	=	8530
ANY(FLT_CDE)	=	8550
ANY(FLT_CDE)	=	8540

10. Once complete select ok

11. Click on One or more radio button
12. Click on General tab and Select the QA/Filters from the drop down box menu
13. Click Save
14. Click on Use which will close this screen



15. Once the report and the query has been filled in, click on Run to run the report



16. The following screen will popup where you can set the filters for your report as shown below.

Run Report

DI Report Writer

Run Report

Trauma Number: [ ] to [ ]

Arrival Date: 01/01/2016 to 30/09/2016

Discharge Date: / / to / /

Record Status: ☐ Active ☐ Closed

Facility: 1212 St Vincent's Hospital

Population Queries

Query	Clear	
Query	Clear	
Query	Clear	

OK Reset Cancel

Give a Date Range as appropriate  
Provide your facility Number

17. Click on OK and the following screen will popup and a CSV file will be created.

Status

Processing records... 98

Abort

18. A CSV file will be saved in the location you have specified.

## Appendix 9: PI - 9 workflow

### Collector workflow

1. Select on Demographic tab
2. Ensure Facility Arrival date and time are entered
3. Select Transfer from another acute care facility from drop down menu in System Access

The screenshot shows the 'Trauma Data Editor' window with the 'Demographic' tab active. The interface includes various input fields for patient and facility information. The 'Facility Arrival' field is populated with '09/12/2016' and '09:00'. The 'System Access' dropdown menu is set to 'Transfer from another acute care facility'. The 'Patient Information' section contains fields for name, address, and contact details. The bottom of the window features a toolbar with 'Check', 'Save', 'Save and Exit', 'Print', 'Close', 'Prev', and 'Next' buttons, and a status bar with 'Trauma Number' and 'Arrival Date' labels.

4. Select Referral Facility tab
5. Select Facility Information tab
6. Enter Referral Facility details
  - a. Referring facility
  - b. Mode of Arrival
  - c. Transfer Rationale
  - d. Arrival Date and Time
  - e. Departure Date and Time

**Trauma Data Editor**

Demographic | Injury | Prehosp | Ref Facility 1 | Ref Facility 2 | Pt Tracking | ED | Procedures | Diagnoses | Outcome | QA | Memo | ITIM

Facility Information | Procedures/Treatments/Meds | Inter-facility Transport | Inter-facility Transport Treatments

Referring Facility: 16208 Wollongong Hospital

Mode of Arrival: Ambulance

Transfer Rationale: Major Trauma

Arrival: 01/12/2016 10:00

Destination Notified:

Departure: 01/12/2016 11:00

Total Time at Referring Facility: 1:00

Referring Facility Vitals

Date	Time	Paralytic Agents	Sedated	Intubated	Respiration Assisted	SaO2	Pulse Rate

Check Save Save and Exit Print Close Prev Next

Trauma Number: Arrival Date: 9/12/2016

7. Select Inter- facility Transport Tab
8. Enter Inter- facility Transport details must include:
  - a. Agency
  - b. Mode
  - c. Arrived at Patient date and time
  - d. Left Location date and time

**Trauma Data Editor**

Demographic | Injury | Prehosp | Ref Facility 1 | Ref Facility 2 | Pt Tracking | ED | Procedures | Diagnoses | Outcome | QA | Memo | ITIM

Facility Information | Procedures/Treatments/Meds | Inter-facility Transport | Inter-facility Transport Treatments

Provider

Agency: AMRS

Unit:

Mode: Helicopter

If Other:

Level of Care: Level 1

Report Available: ☒

Run Number:

Dispatch Number:

Call

Event	Date	Time
Call Received	11/12/2016	10:00
Call Dispatched	11/12/2016	10:04
En Route	11/12/2016	10:10
Arrived at Location	11/12/2016	10:30
Arrived at Patient	11/12/2016	10:31
Left Location	11/12/2016	10:50
Arrived at Destination	11/12/2016	11:15

Inter-facility Provider Vitals

Date	Time	Paralytic Agents	Sedated	Intubated	Respiration Assisted	SaO2	Pulse Rate

Check Save Save and Exit Print Close Prev Next

Trauma Number: Arrival Date: 31/1/2014

9. Click Save

## Report Writer workflow

### Data table report

1. Open Report Writer.
2. Click on Report



3. Select User radio button and Click on Edit
4. A popup screen opens up( as shown in the screenshot)
5. Click on Data Table Report button in this popup screen



6. After you click Data Table Report ( in step 5) the following screen appears
7. Fill in the Name and Description fields as shown in the screenshot
8. A popup screen opens up which allows you to add Fields in your report
9. Select the Name field and enter process indicator name DT\_MRT\_TURNAROUND
10. Select the description field and enter MRT turnaround time
11. Select add
12. Enter the first the Field Name, description and format per table below
13. Select the green “+” button

14. Repeat steps 12 and 13 adding the fields and their labels from the following table:

Fields	Description	Format
INST_NUM	Facility number	
INST_NUM_AS_TEXT	Facility Name	
EDA_DT	Facility Arrival Date	D0E1Z0
ED_TM	Facility Arrival Time	
AGE_RPT	Age	
E_CODE_1_AS_TEXT	mechanism	
ISS_RPT	ISS	
DIS_STS_RPT_AS_TEXT	Outcome	
RF_HOSP_AS_TEXT	Referring Facility1	
IT_PR_ID_AS_TEXT	Agency1	
IT_MODE_AS_TEXT	Mode1	
IT_PT_DT	Retrieval Team1 at pt date	D0E1Z0
IT_PT_TM	Retrieval Team1 at pt time	
IT_L_DT	Retrieval Team 1 left location date	D0E1Z0
IT_L_TM	Retrieval Team 1 left location time	
MINUS(EDA_EVENT,IT_PT_EVENT)	Time elapsed in mins RF Hos 1 to TS	
MINUS(IT_L_EVENT,IT_PT_EVENT)	Time elapsed MRT at PT to left loc	

15. Once complete select ok

DT\_MRT\_TURNAROUND - Data Table Editor

Name: DT\_MRT\_TURNAROUND

Description: MRT turnaround time

Data Elements | Sort Order | General

Field	Label	Width	Format
INST_NUM_AS_TEXT	Facility Name		
INST_NUM	Facility		
TRAUMA_NUM	Trauma ID		
AGE_RPT	Age (yrs)		
ISS_RPT	ISS		
E_CODE_1_AS_TEXT	Mechanism of Injury (Primary)		
DIS_STS_RPT_AS_TEXT	Outcome		
EDA_TM	Facility arrival time		
RF_HOSP_AS_TEXT	Referring facility as text		
IT_PR_ID_AS_TEXT	Agency 1		
IT_MODE_AS_TEXT	Mode 1		
IT_L_TM	Retrieval Team 1 left location time		
IT_L_DT	Retrieval Team 1 left location date		D0E1Z0
MINUS(EDA_EVENT,IT_PT_EVENT)	Time elapsed in mins RF Hos 1 to TS		
MINUS(IT_L_EVENT,IT_PT_EVENT)	Time elapsed MRT at PT to left loc		

Buttons: Add, Edit, Delete, Move Up, Move Down, Quick Add

Buttons: Use, Save, Save As, Close

16. Click on General tab

17. Click CSV option and also select Include Column Headings tick box

18. Click Save

19. Click on Use which will close this screen

DT\_MRT\_TURNAROUND - Data Table Editor

Name:

Description:

**Data Elements** | **Sort Order** | **General**

Title:

SubQuery:

Output Type

☐ Tabular

☒ CSV

☒ Include Column Headings

☒ Launch Excel

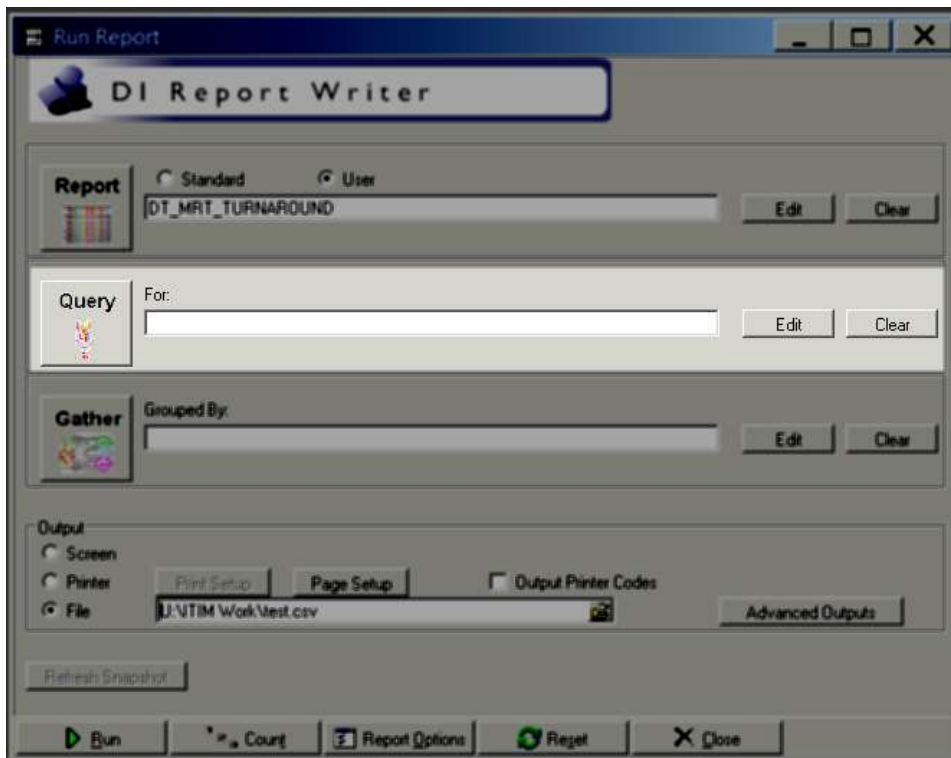
Default Filename:

Across:

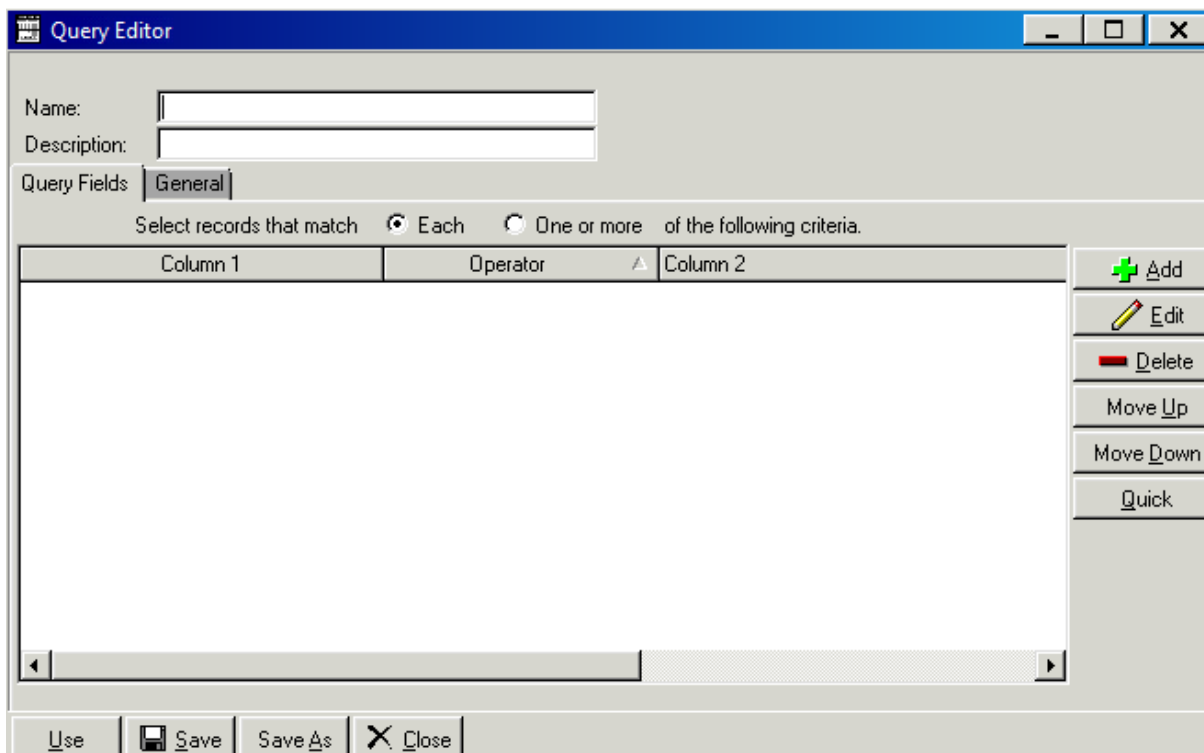
20. Click on the File radio button in Output section
21. Click on the File Folder button will open the "Select File" screen
22. Provide the file name ( also put a .CSV) at the end of file name
23. Click on Open and the "Select File" screen will close and the name of the file will appear in the "Run Report" screen

## Query 1: Q\_MRT\_AGENCY

1. Select Query edit button on the main screen on Report Writer

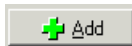


2. Clicking the Query edit button opens the following screen

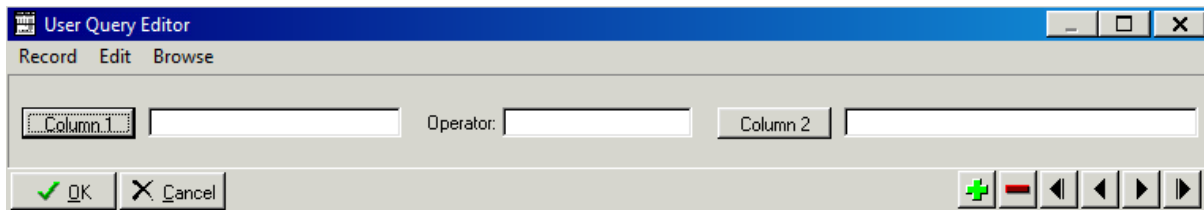


3. Select the Name field and enter process indicator name **Q\_MRT\_AGENCY**
4. Select the description field and enter the description MRT Agency

5. Click the Add button on the right hand side of the screen



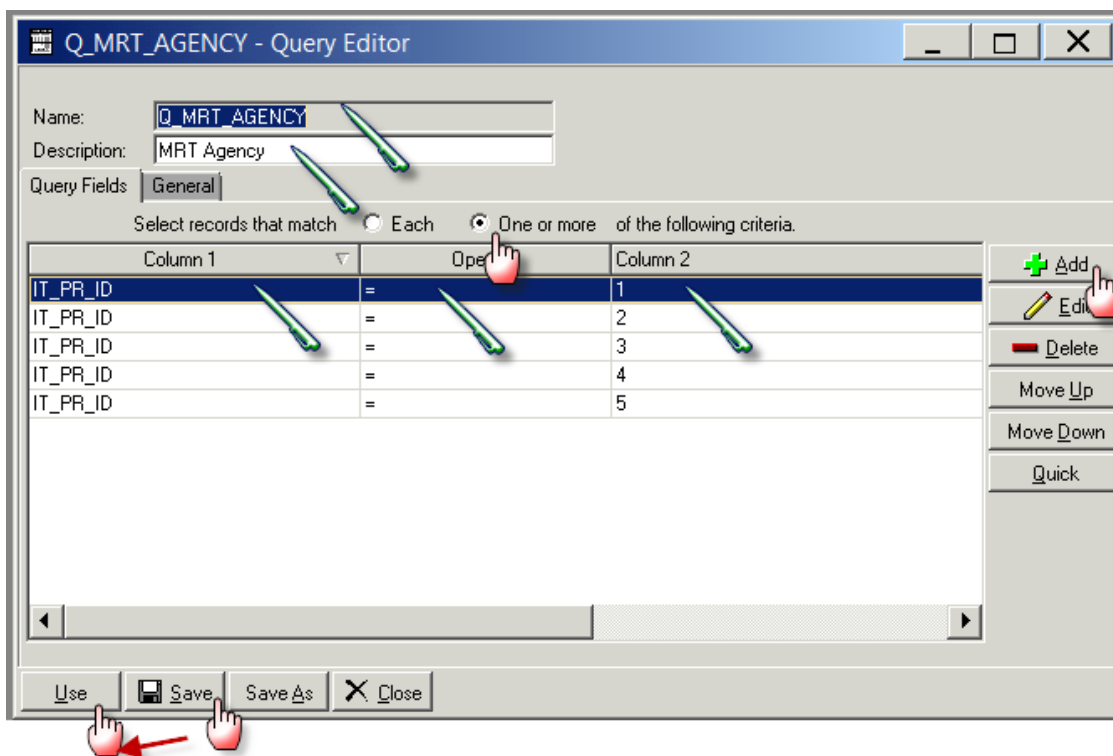
6. Clicking on add button opens the following screen



7. Enter the first query field into Column 1, Operator and Column 2 as per table below  
8. Select the green “+” button  
9. Repeat steps 6 and 7 adding the fields and their labels from the following table:

Column 1	Operator	Column 2
IT_PR_ID	=	1
IT_PR_ID	=	2
IT_PR_ID	=	3
IT_PR_ID	=	4
IT_PR_ID	=	5

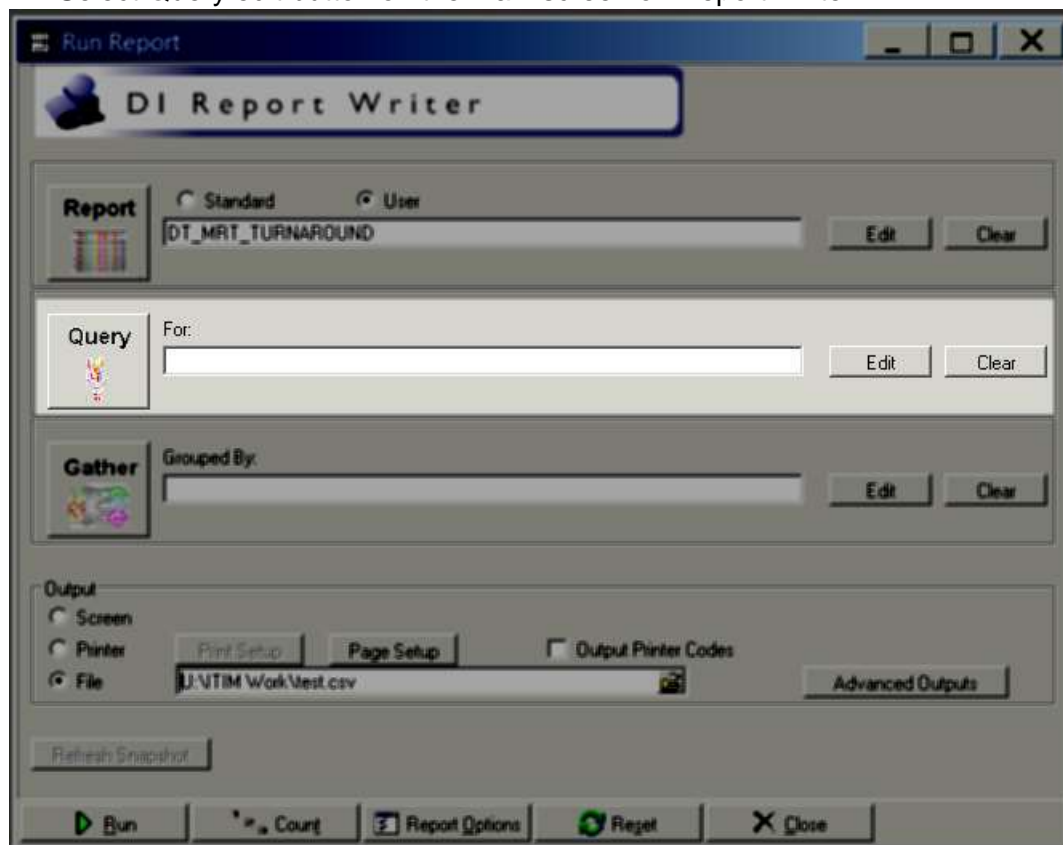
10. Once complete select ok  
11. Click on One or more radio button



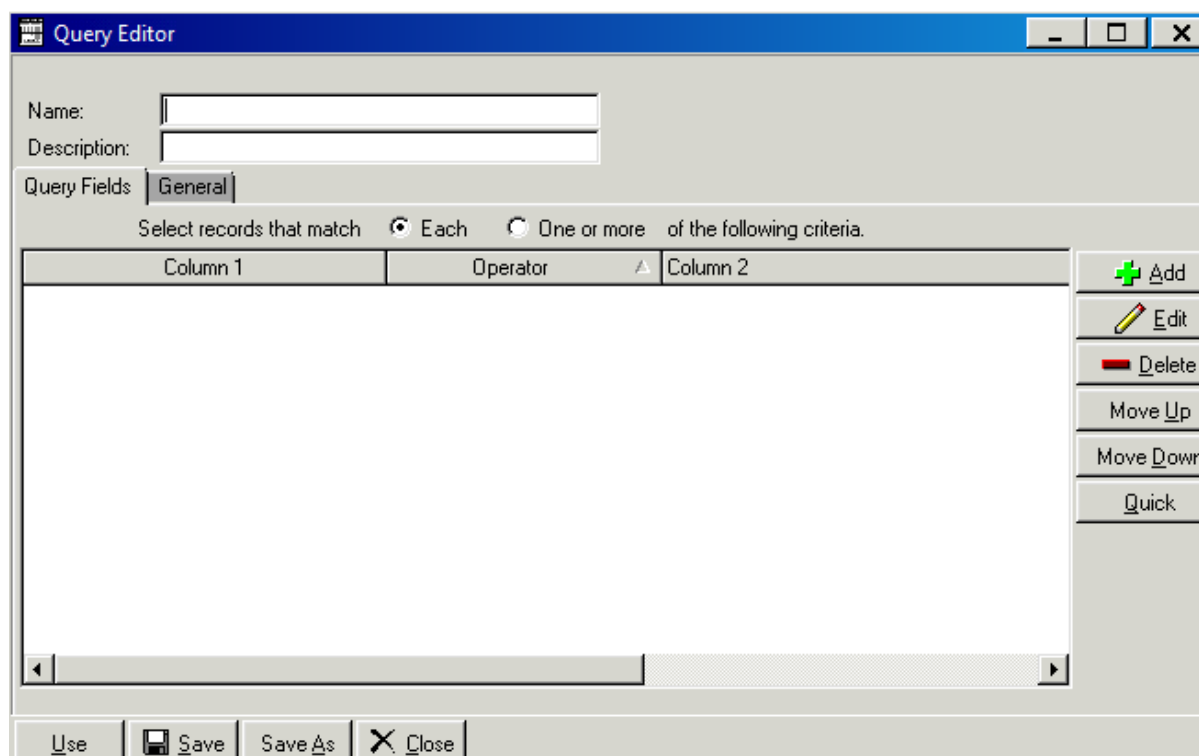
12. Click Save  
13. Click on use to close the window

## Query 2: Q\_MRT\_ASNSW\_MODE

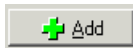
1. Select Query edit button on the main screen on Report Writer



2. Clicking the Query edit button opens the following screen



3. Select the Name field and enter process indicator name **Q\_MRT\_ASNSW\_MODE**
4. Select the description field and enter the description MRT Helicopter/Fixedwing
5. Click the Add button on the right hand side of the screen



6. Clicking on add button opens the following screen

7. Enter the first query field into Column 1, Operator and Column 2 as per table below

8. Select the green “+” button

9. Repeat steps 6 and 7 adding the fields and their labels from the following table:

Column 1	Operator	Column 2
IT_MODE	=	1
IT_MODE	=	2

10. Once complete select ok

11. Click on One or more radio button

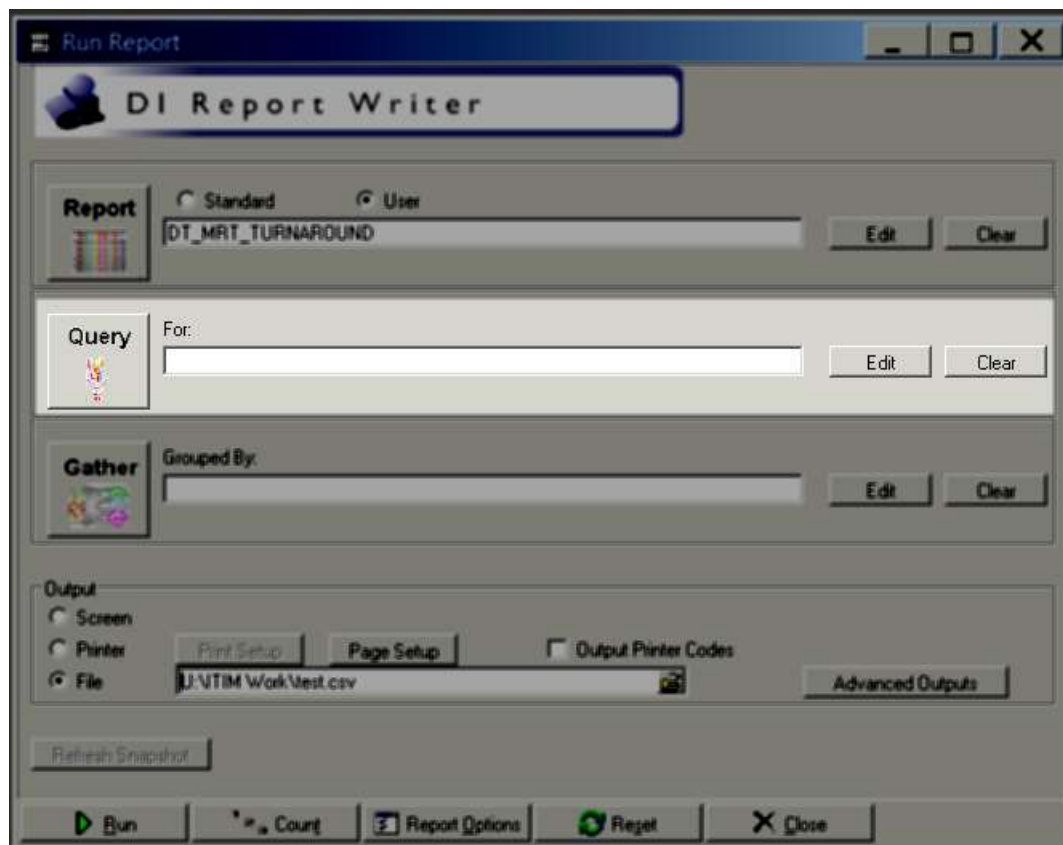
12. Click Save

13. Click on close

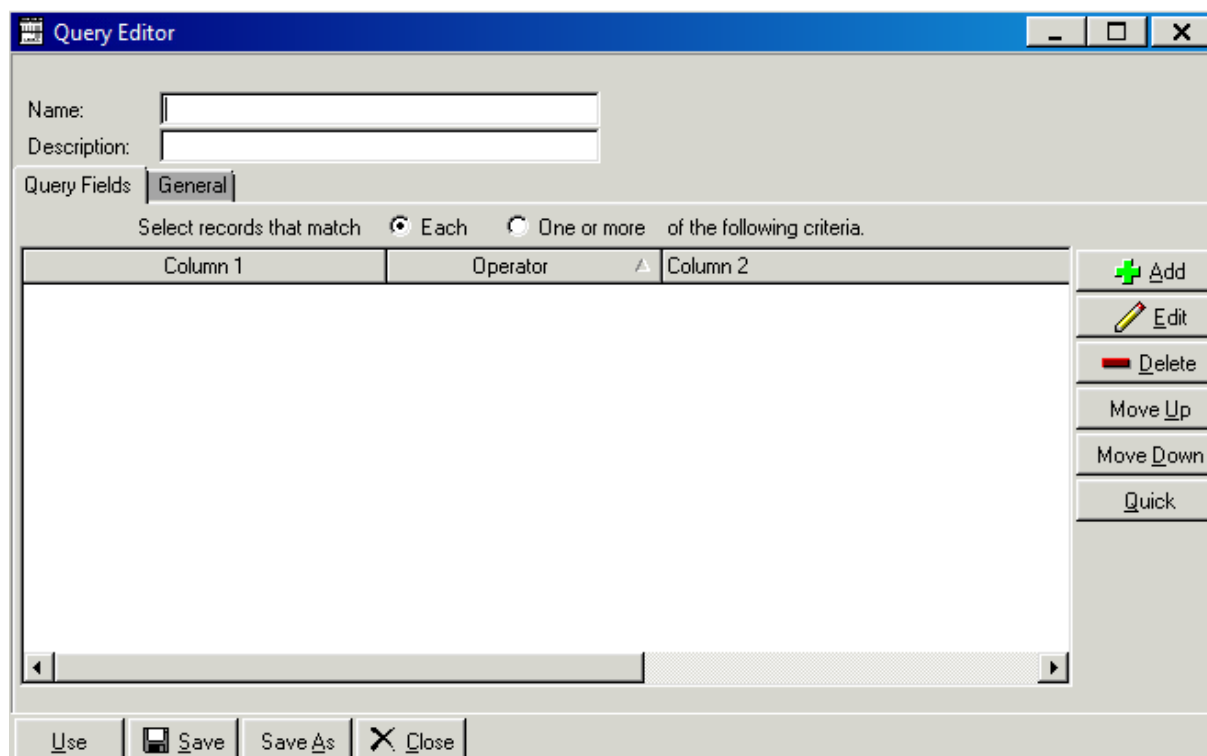
14. Clicking on use, closes the window

### Query 3: Q\_MRT\_AGENCY\_PLUS\_MD

1. Select Query edit button on the main screen on Report Writer



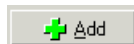
2. Clicking the Query edit button opens the following screen



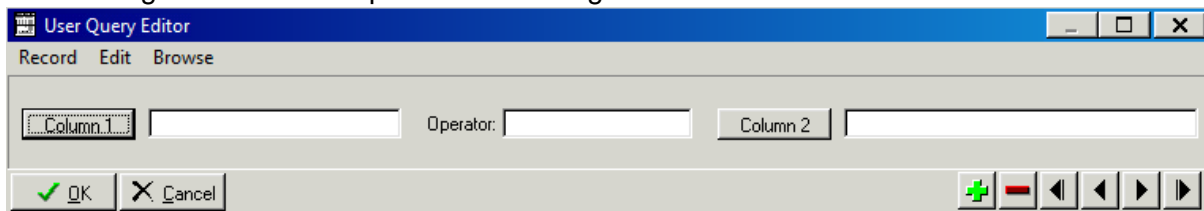
3. Select the Name field and enter process indicator name **Q\_MRT\_AGENCY\_PLUS\_MD**
4. Select the description field and enter the description **MRT AGENCY + MODE**



5. Click the Add button on the right hand side of the screen



6. Clicking on add button opens the following screen

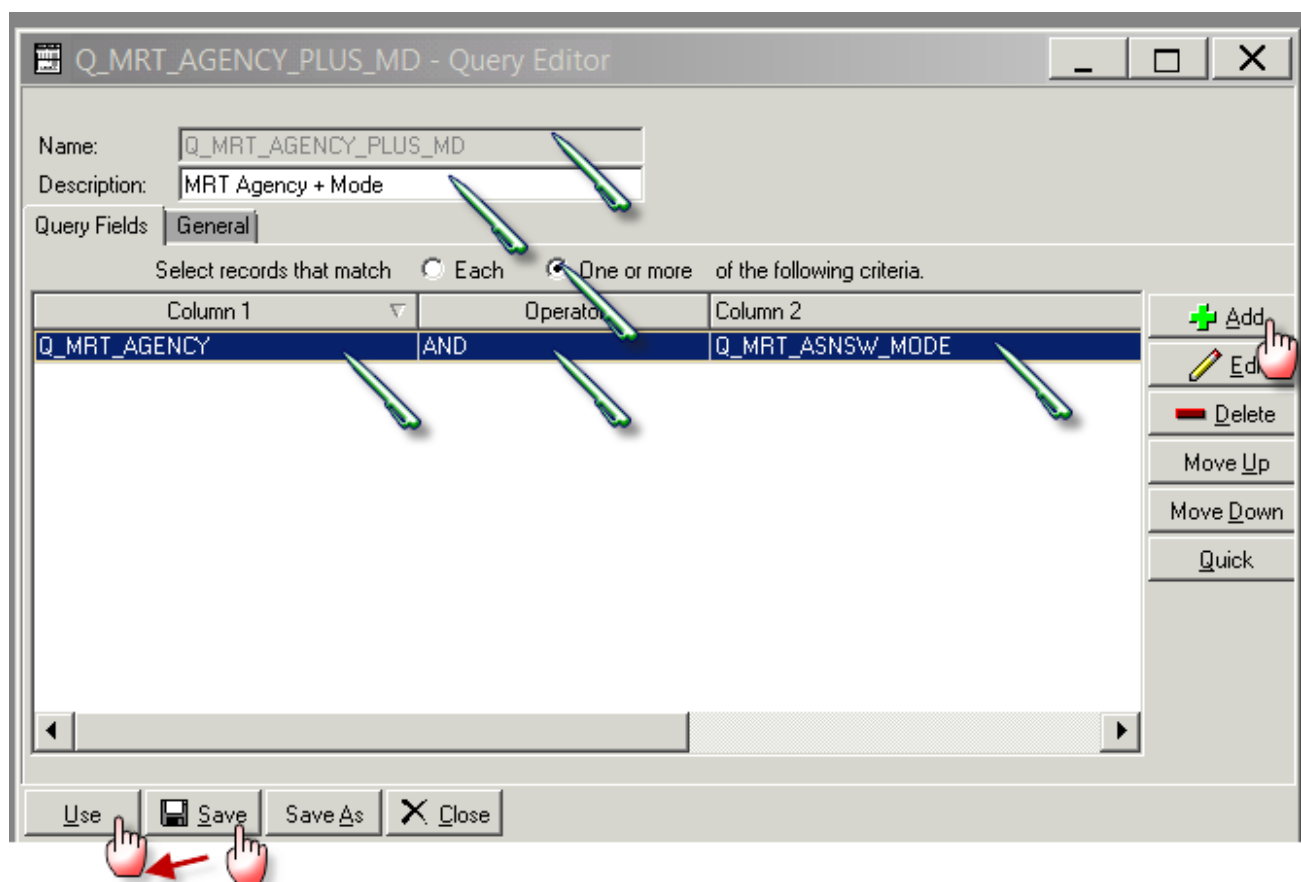


7. Enter the first query field into Column 1, Operator and Column 2 as per table below:

Column 1	Operator	Column 2
Q_MRT_AGENCY	AND	Q_MRT_ASNSW_MODE

8. Once complete select ok

9. Click on One or more radio button

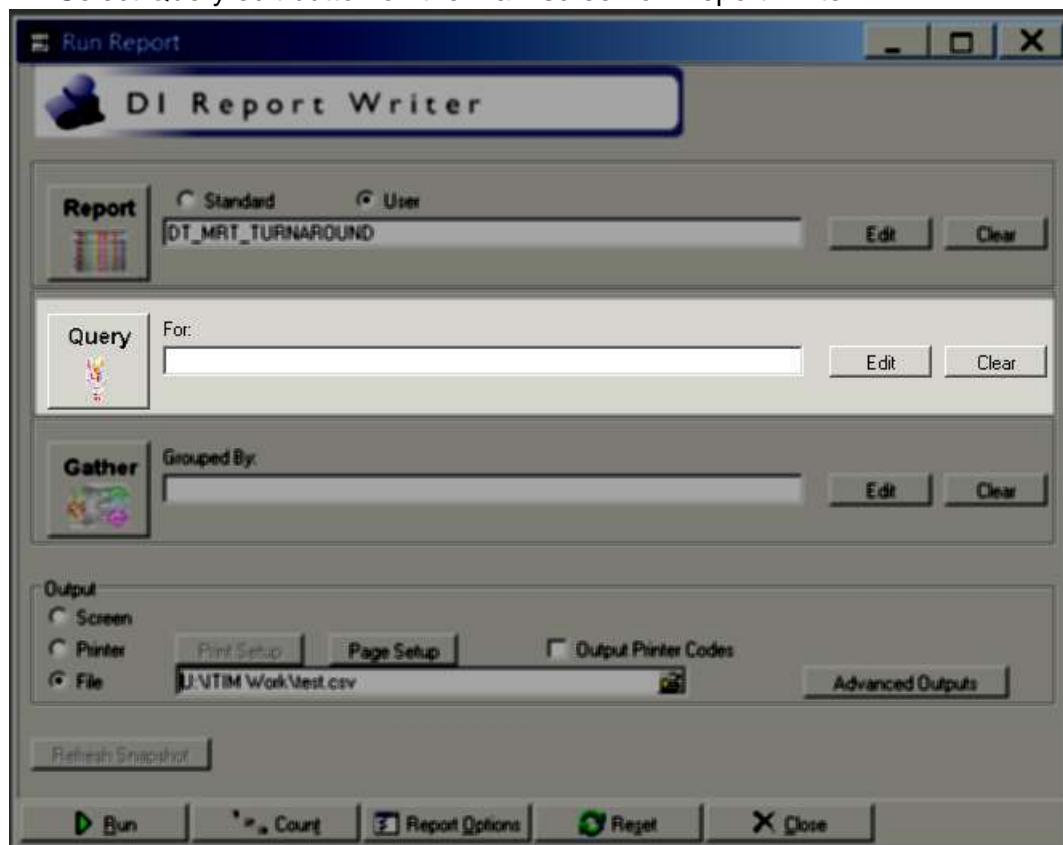


10. Click Save

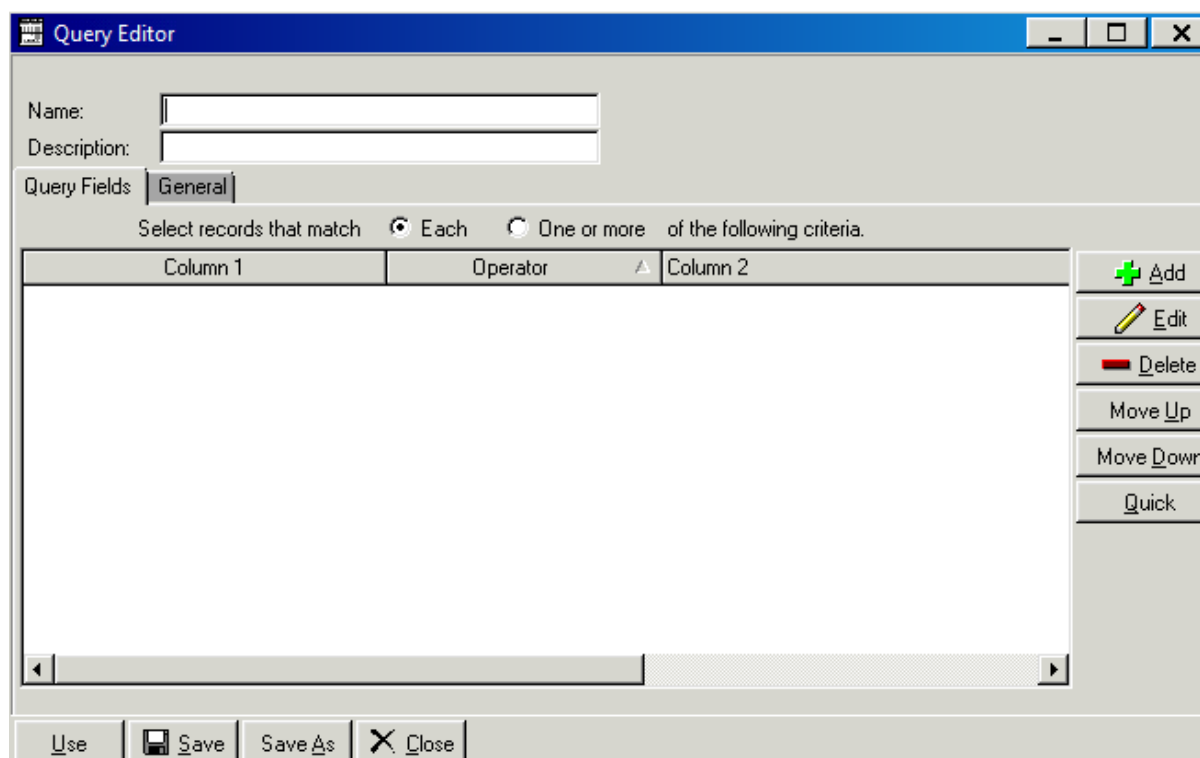
11. Click use to close

#### Query 4: Q\_MRT\_TIME\_GT\_60

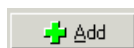
1. Select Query edit button on the main screen on Report Writer



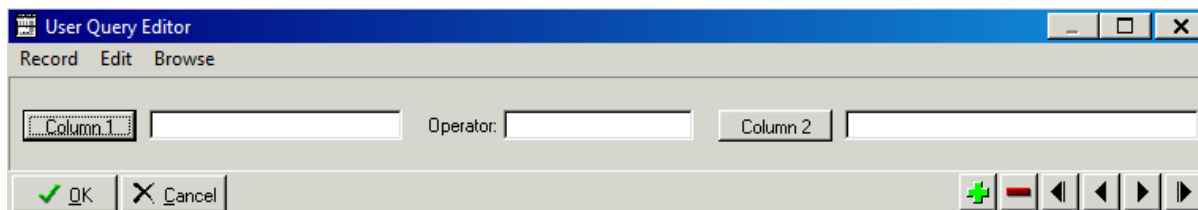
2. Clicking the Query edit button opens the following screen



3. Select the Name field and enter process indicator name **Q\_MRT\_TIME\_GT\_60**
4. Select the description field and enter the description MRT Turnaround time GT 60
5. Click the Add button on the right hand side of the screen



6. Clicking on add button opens the following screen



7. Enter the first query field into Column 1, Operator and Column 2 as per table below:

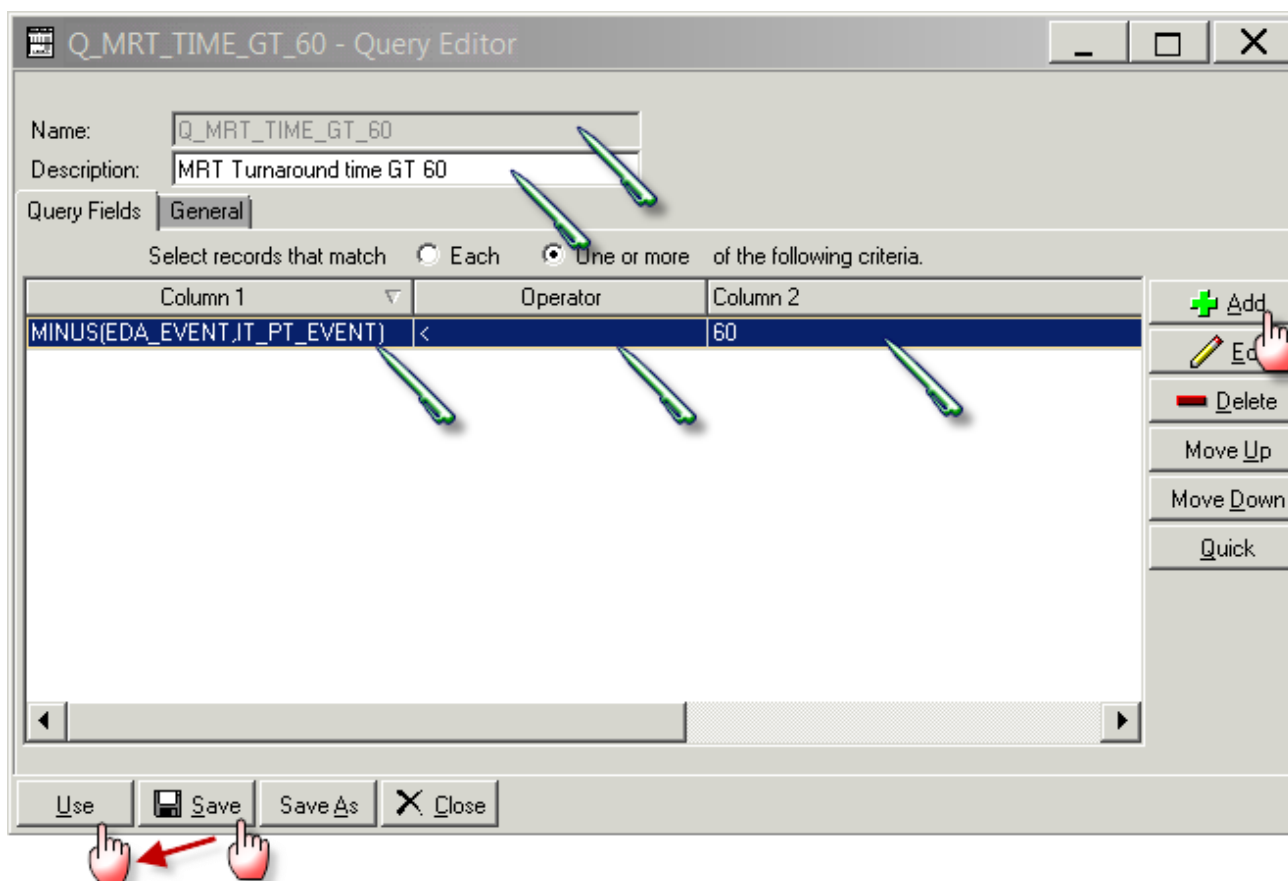
Column 1	Operator	Column 2
MINUS(EDA_EVENT,IT_PT_EVENT)	<	60

8. Once complete select ok

9. Click on One or more radio button

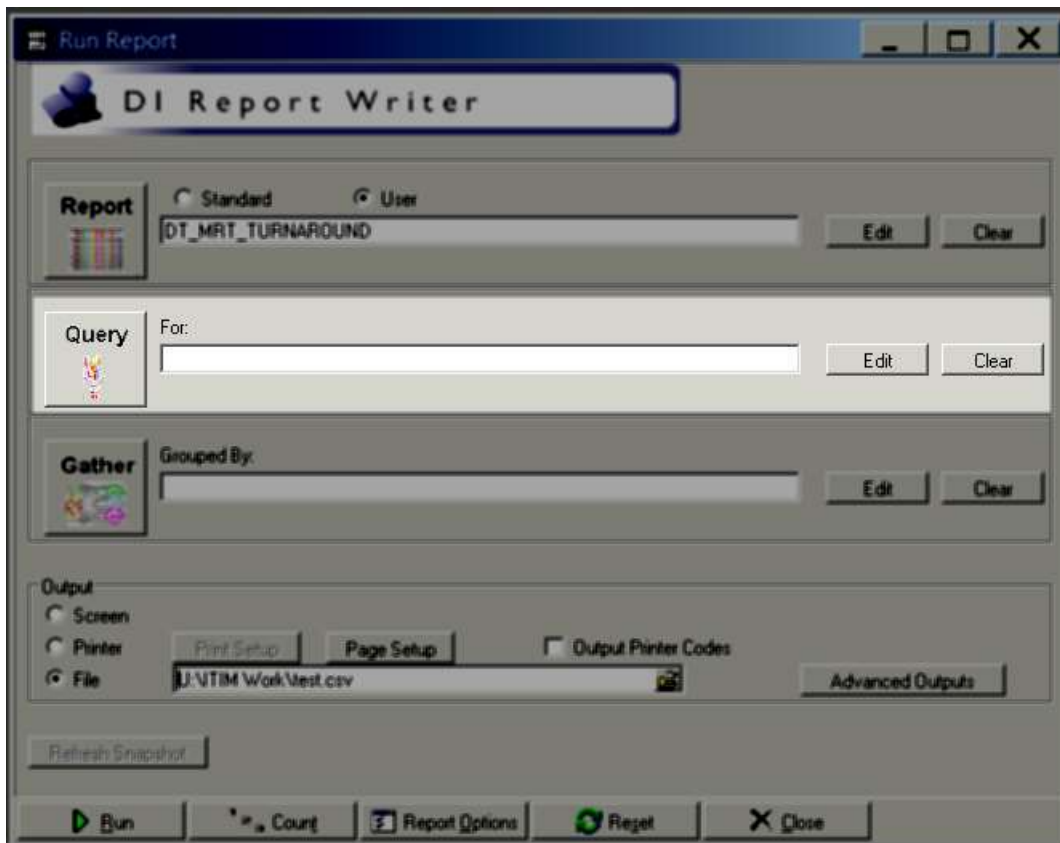
10. Click Save

11. Clicking on used closes the window

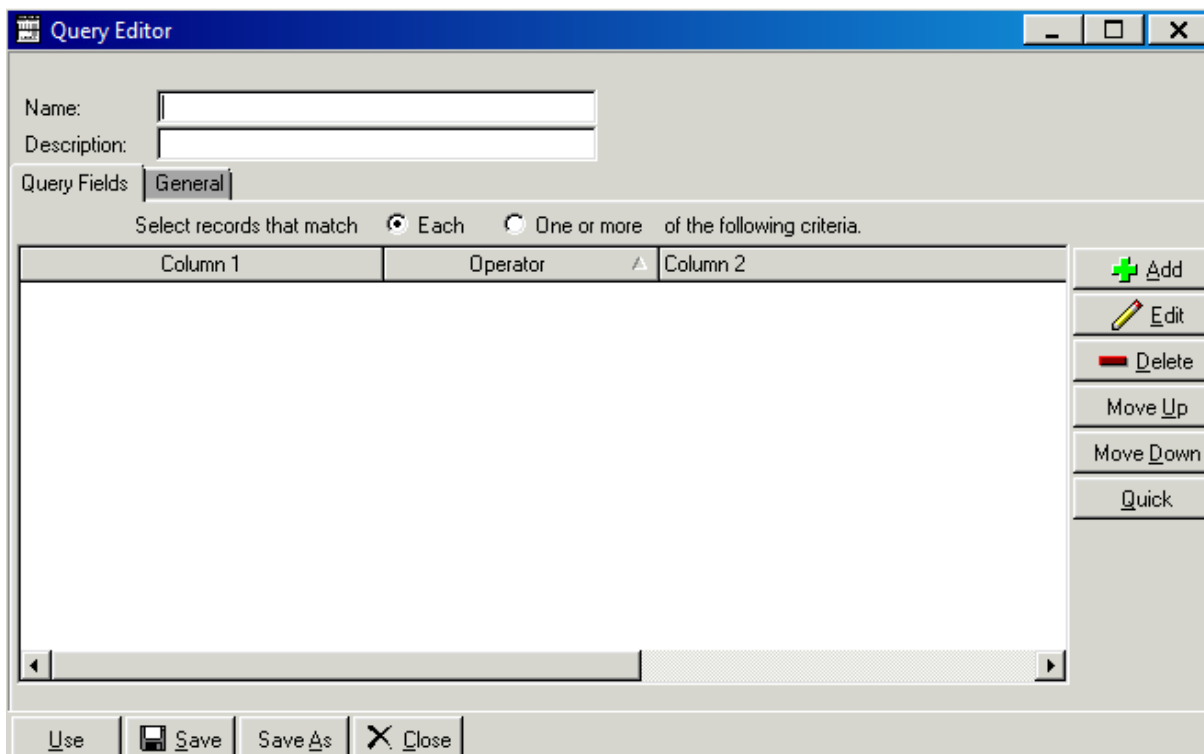


### Query 5: Q\_MRT\_TIME\_LTE\_60

1. Select Query edit button on the main screen on Report Writer



2. Clicking the Query edit button opens the following screen

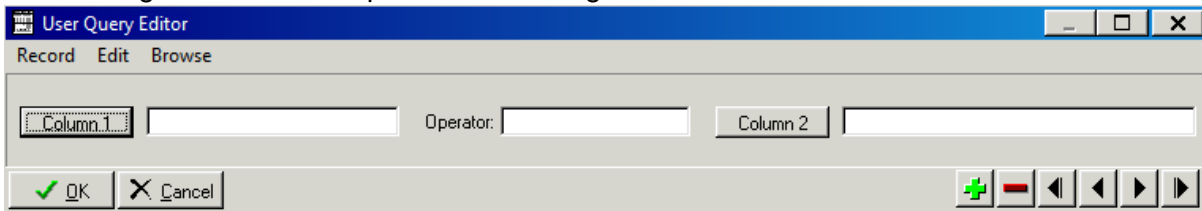


3. Select the Name field and enter process indicator name **Q\_MRT\_TIME\_LTE\_60**
4. Select the description field and enter the description MRT Turnaround time LTE 60

5. Click the Add button on the right hand side of the screen



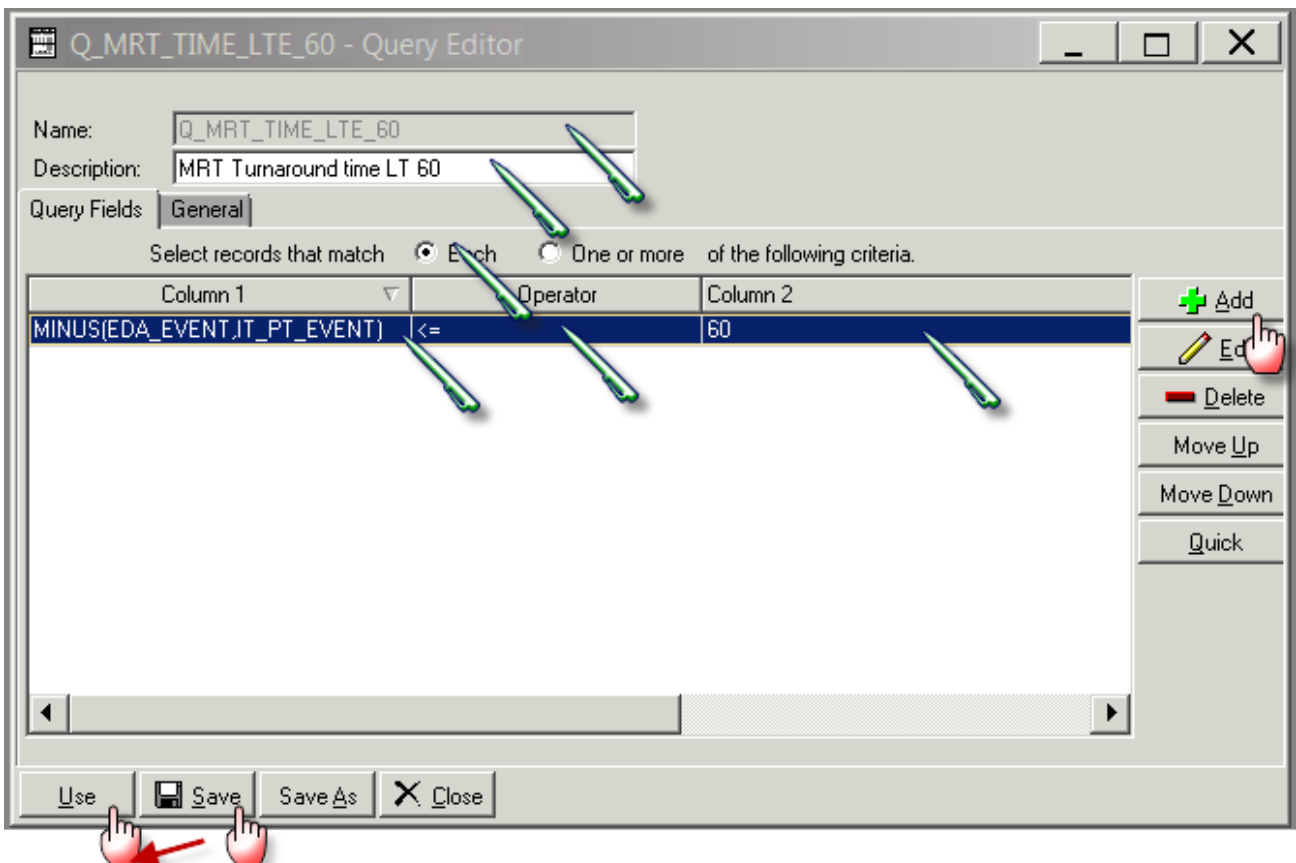
6. Clicking on add button opens the following screen



7. Enter the first query field into Column 1, Operator and Column 2 as per table below:

Column 1	Operator	Column 2
MINUS(EDA_EVENT,IT_PT_EVENT)	<=	60

8. Once complete select ok



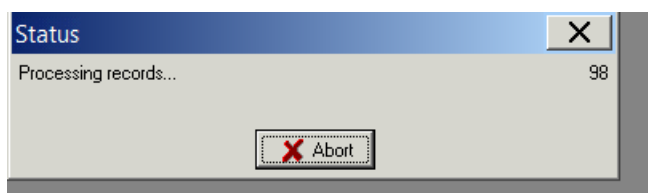
9. Click on One or more radio button  
10. Click Save  
11. Click on use closes the window

## Running the Query

1. Select Query button on the main screen on Report Writer
2. Scroll down or search for **Q\_MRT\_AGENCY\_PLUS\_MD** and **Q\_MRT\_TIME\_GT\_60** or **Q\_MRT\_TIME\_LTE\_60**
3. Select query and click use
4. Clicking use closes the window
5. Once the report and the query has been filled in, click on Run to run the report

6. The following screen will popup where you can set the filters for your report as shown below.

7. Click on OK and the following screen will popup and a CSV file will be created.



8. A CSV file will be saved in the location you have specified.

## Appendix 10: PI - 10 workflow

## Collector workflow

1. Select on Demographic tab
2. Ensure Facility Arrival date and time are entered
3. Select Transfer from another acute care facility from drop down menu in System Access

The screenshot displays the eMeds software interface. At the top, there is a navigation bar with tabs for Demographic, History, Physical, Radiology, Laboratory, Billing, Insurance, Diagnosis, Orders, and Notes. The Demographic tab is active, showing patient information. A 'Patient' dropdown menu is open, displaying 'Transfer/Transfered'. Below this, there are fields for Patient/County, Facility, Medical Record Number, Account Number, Facility Arrival (02/01/2014 23:56), and System Access (Transfer from another acute care facility). The Patient Information section includes fields for Name, Last, First, Middle, and Sex, as well as Address, City, State, and Zip. The Facility Information section includes fields for Facility Name, Address, City, State, and Zip. The Insurance section includes fields for Insurance Company, Policy Number, and Group Number. The bottom of the screen shows a status bar with icons for Check, Save, Print, and other functions.

4. Select Referral Facility tab
5. Select Facility Information tab
6. Enter Referral Facility details
  - a. Referring facility
  - b. Mode of Arrival
  - c. Transfer Rationale
  - d. Arrival Date and Time
  - e. Departure Date and Time



**Facility Information**

Referring Facility: 1202 Canterbury Hospital

Mode of Arrival: Private Vehicle

Transfer Rationale: Major Trauma

Arrival: 02/01/2014 22:27

Destination Notified: 02/01/2014 23:00

Departure: 02/01/2014 23:30

Total Time at Referring Facility: 0:00

Date	Time	Paramedic Agents	Tachycard	Initiated	Respiration Assisted	SpO2	Pulse Rate
------	------	------------------	-----------	-----------	----------------------	------	------------

Check Save Save and Exit Print Close

Trauma Number: 20114555 Arrival Date: 2/1/2014

7. Select Inter-facility Transport Tab
8. Enter Inter-facility Transport details must include:
  - a. Agency
  - b. Mode
  - c. Call received date and time (time of first notification to retrieval service)

**Inter-facility Transport**

Provider: AMRS

Unit: Helicopter

Mode: Helicopter

If Other:

Level of Care: Level 1

Report Available: ☒

Run Number:

Dispatch Number:

Call

Call Received: 11/12/2016 10:00

Call Dispatched: 11/12/2016

En Route: 11/12/2016

Arrived at Location: 11/12/2016

Arrived at Patient: 11/12/2016 11:05

Left Location: 11/12/2016 11:35

Arrived at Destination: 11/12/2016 12:15

Date	Time	Paramedic Agents	Tachycard	Initiated	Respiration Assisted	SpO2	Pulse Rate
------	------	------------------	-----------	-----------	----------------------	------	------------

Check Save Save and Exit Print Close

Trauma Number: 20112853 Arrival Date: 1/3/2011

9. Click Save

## Report Writer workflow

### Data table report

1. Open Report Writer.
2. Click on Report
3. Select User radio button and Click on Edit
4. A popup screen opens up( as shown in the screenshot)
5. Click on Data Table Report button in this popup screen



6. A popup screen opens up which allows you to add Fields in your report
7. Select the Name field and enter process indicator name DT\_ CI\_NOT\_GT\_30MIN
8. Select the description field and enter NOTIFICATION > 30MINS
9. Select add
10. Enter the first the Field Name, description and format per table below
11. Select the green "+" button

12. Repeat steps 9 and 10 adding the fields and their labels from the following table:

Fields	Description	Format
INST_NUM	Facility number	
ENTRY_SYS_AS_TEXT	system access	
RF_HOSP_AS_TEXT	Referring Facility1	
RF_A_DT	Ref arrival date	D0E1Z0
RF_A_TM	Ref arrival time	
MINUS(IT_C_EVENT,RF_A_EVENT)	Notification time	
IT_C_DT	Call notification date	D0E1Z0
IT_C_TM	Call notification time	
IT_C_EVENT	Notification event date	D0E1Z0

13. Once complete select ok

14. Click on General tab

15. Click CSV option and also select Include Column Headings tickbox

16. Click Save

17. Click on Use which will close this screen

18. Click on the File radio button in Output section

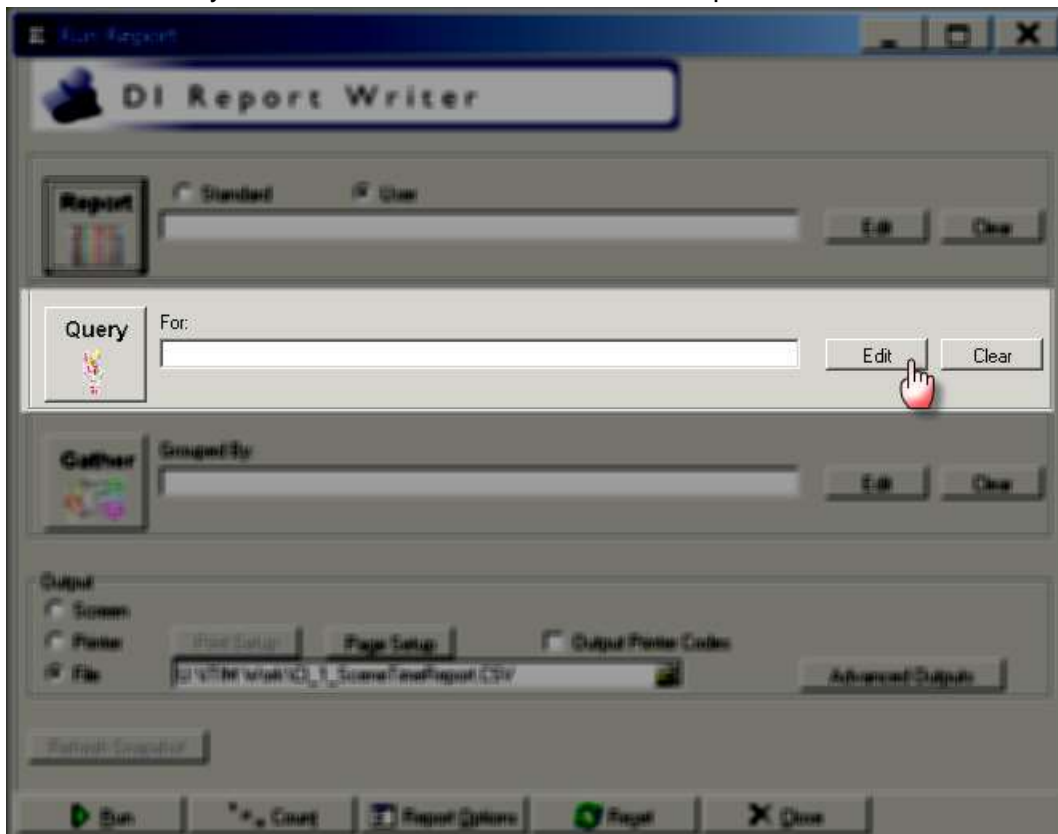
19. Click on the File Folder button will open the “Select File” screen

20. Provide the file name ( also put a .CSV) at the end of file name

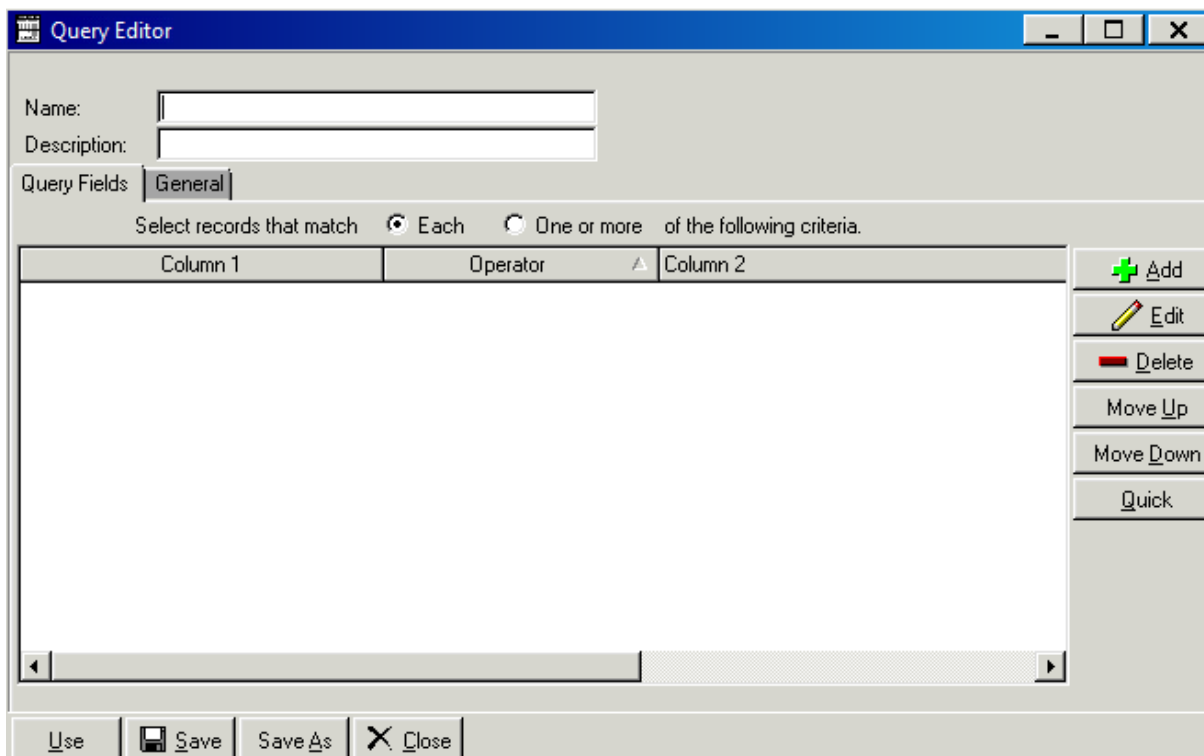
21. Click on Open and the “Select File” screen will close and the name of the file will appear in the “Run Report” screen

## Query

1. Select Query edit button on the main screen on Report Writer



2. Clicking the Query edit button opens the following screen



3. Select the Name field and enter process indicator name Q\_CI\_NOT\_GT\_30MIN
4. Select the description field and enter the description NOTIFICATION > 30MINS

- Click the Add button on the right hand side of the screen



- Clicking on add button opens the following screen

- Enter the first query field into Column 1, Operator and Column 2 as per table below
- Select the green “+” button
- Repeat steps 7 and 8 adding the fields and their labels from the following table:

Column 1	Operator	Column 2
ENTRY_SYS	=	3
MINUS(IT_C_EVENT,RF_A_EVENT)	>	30

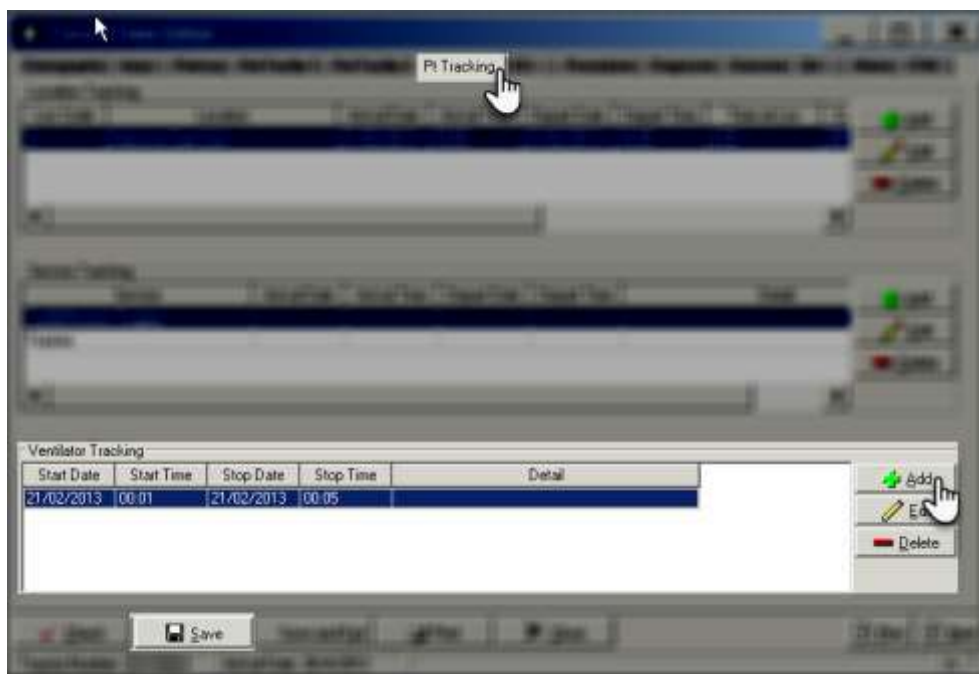
- Once complete select ok

- Click on General tab and Select the Ref Facility 1/Facility Information from the drop down box menu
- Click Save
- Click on Use which will close this screen
- Once the report and the query has been filled in, click on Run to run the report
- A screen will popup where you can set the filters for your report.
- Click on OK and the following screen will popup and a CSV file will be created. A CSV file will be saved in the location you have specified.

## Appendix 11: PI - 11 workflow

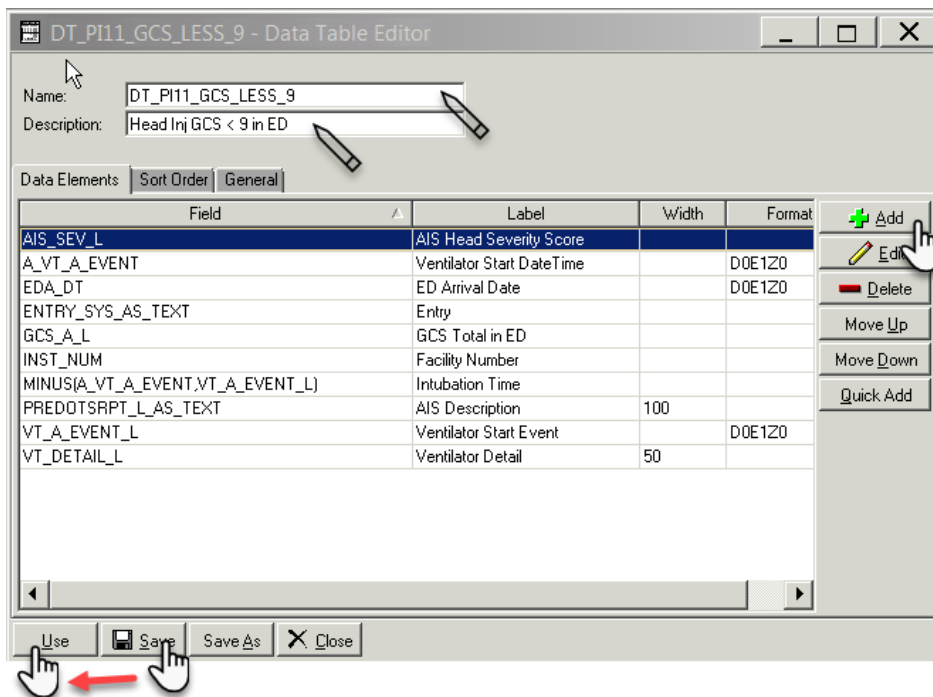
### Collector workflow

1. Select Pt Tracking tab
2. Choose Ventilator Tracking
3. Enter data



### Report Writer workflow

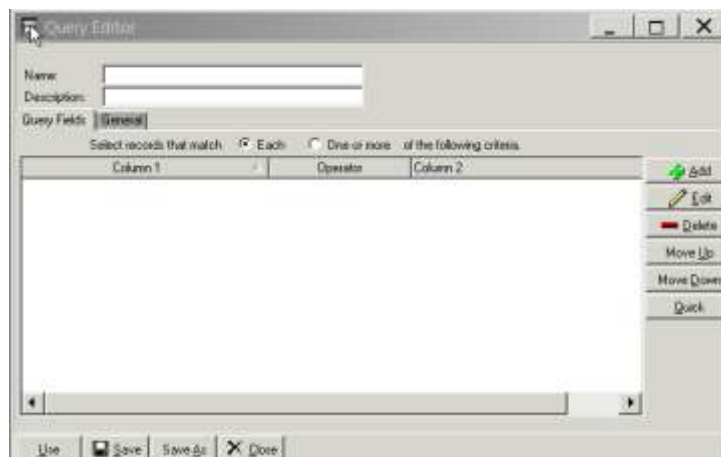
1. Create a data table filename: example: DT\_PI11\_GCS\_LESS\_9
2. Select the Add button on the right hand side of the screen
3. **Add** the data elements as per screen
4. Then hit SAVE then USE



On Query:

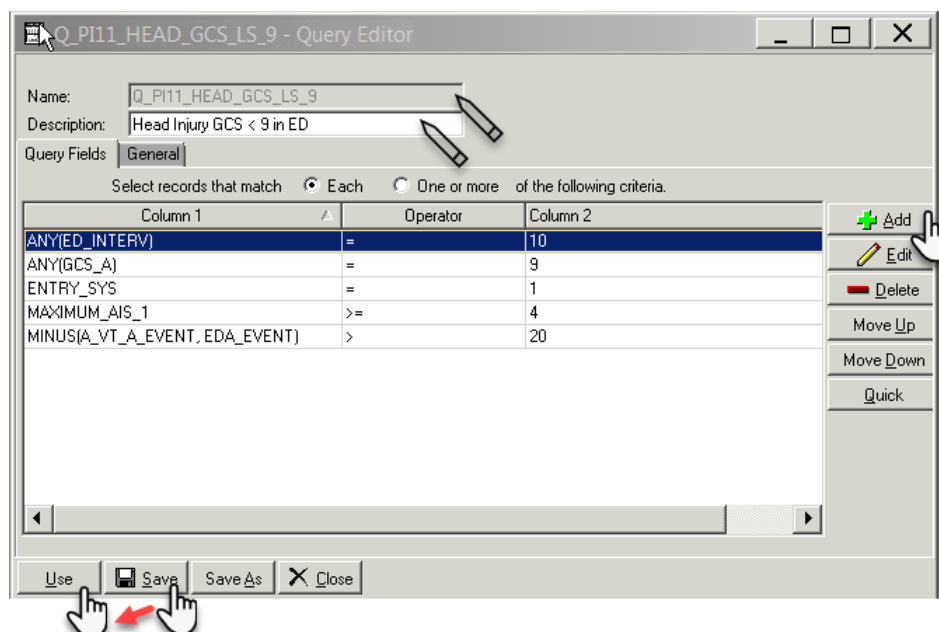
- Select the Query button, this screen props up

See screen shot below:



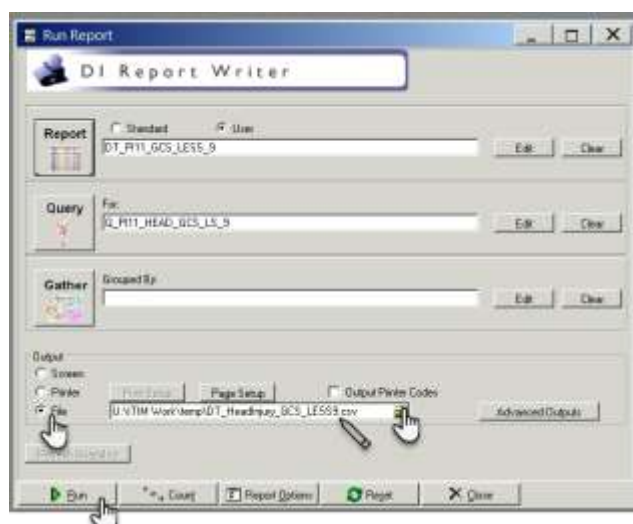
- **Create** a query table filename: example: DT\_HEADGCS\_LESS\_9
- Select the Add button on the right hand side of the screen
- **Add** the data elements as per screen
- Then hit SAVE then USE

See screen shot below:



When Save & use is hit the screen below props up

Then hit RUN located on the bottom left hand side of the screen: See screen shot below



Once RUN is selected another screen props up. Choose date range

Then hit OK then RUN

See screen shot below:



Run Report

DI Report Writer

Run Report

Trauma Number:  to

Arrival Date: 01/07/2015 to 31/07/2016

Discharge Date: / / to / /

Record Status: ☐ Active ☐ Closed

Facility:

Population Queries

Query	Clear	<input type="text"/>
Query	Clear	<input type="text"/>
Query	Clear	<input type="text"/>

OK Reset Cancel

Refresh Snapshot

Run Count Report Options Reset Close

See output below:

facility	entry	ED arrival d	mechar	GCS to	ais des	ventilatorstart	ever	ventilation detail	ventilatorsta	intubation time
1208	Pre-hos	5/10/2016	Ped vs	3	cerebru	10/05/2016 18:17	intubated in ED		05/10/16	23

## Retrieval Sheets from Various Agencies

### Ambulance Electronic Medical Record (relevant to PI-1)

*RTA Information*

**VACIS - Ambulance Electronic Medical Record**  
**CONSOLIDATED COPY**  
 (Complaint Investigation (Closed cases only))  
 (Closed)

Page 2 of 5

Case # \_\_\_\_\_ Patient Name \_\_\_\_\_

Case Date \_\_\_\_\_ *Date*

PI-1 - Arrived at Patient Time

Times	Dispatched	En Route	@ Scene	@ Patient	Loaded	Notify	@ Destination	Triage	Off Stretcher	Clear
Call Received	14:55	15:02	15:04	15:24	15:26	15:57	16:18	16:23	17:00	17:28

*Depart*

Past History  
 Pre-Exist Atrial Fibrillation; Coronary Artery Graft Surgery >> WAITING X 3; Diabetes  
 Meds other WARFARIN; PLUS OTHERS  
 Allergies No Known Allergies

History  
 Nature motor vehicle collision

Case Description

RTA Vehicle

Patient Information  
 Patient Involvement Driver  
 Major Accident Veh. Collsn > 60 kph  
 Situation In Veh. Trapped  
 Position Front

Safety Details  
 Seat belt type 3 Point  
 Seat belt

Process Indicator 1  
 "Was Patient Extricated"  
 info can be derived from this field

NSW Ambulance, Incident Based Data, 2019  
 #PCN 10.0

## NSW Ambulance PHCR (relevant to PI-1)

**Process Indicator -1**  
**Scene Time**

**Process Indicator -1**  
**"Was patient extricated?" can be derived from these fields.**

**Extricated**

**Scene Time**

**PHCR Form Fields:**

- Patient Details:** Patient's Family Name, Patient's Given Name, Patient's Middle Name, Date of Birth, Age (Y), Sex, Height, Weight, Blood Type, Language Spoken, Patient's Phone Number, Patient's Address, State, Hospital Code.
- Transportation:** Transported To, Transported From, Transported By, Transported On, Transported In, Transported With, Transported By, Transported On, Transported In, Transported With.
- Medical History:** Medical History, Allergies, Medications, Current Medications, Past Medical History, Current Medications, Past Medical History.
- Mechanism of Injury:** Mechanism of Injury, Location of Injury, Time of Injury, Weather Conditions, Road Conditions, Vehicle Information, Driver Information, Passenger Information, Other Information.
- Examination:** General Examination, Head Examination, Neck Examination, Chest Examination, Abdominal Examination, Pelvic Examination, Extremity Examination, Neurological Examination, Skin Examination, Other Examination.
- Vital Signs:** Vital Signs, Temperature, Heart Rate, Blood Pressure, Respiratory Rate, Oxygen Saturation, Glucose, Urine, Other.
- Diagnosis:** Diagnosis, Primary Diagnosis, Secondary Diagnosis, Tertiary Diagnosis, Quaternary Diagnosis, Quinary Diagnosis, Senary Diagnosis, Septenary Diagnosis, Octonary Diagnosis, Nonary Diagnosis, Decary Diagnosis.
- Treatment:** Treatment, Initial Treatment, Ongoing Treatment, Discharge Treatment, Follow-up Treatment, Other Treatment.
- Outcome:** Outcome, Discharge Status, Follow-up Status, Other Status.

## Ambulance Services of NSW (relevant to PI- 1,PI-9 and PI-10)

**Ambulance Service of New South Wales**

**INFLIGHT REPORT Z132111**

**7 2 2 5 9**

**Process Indicator -10 Booked Time/Retrieval Contact Time**

**Process Indicator -9 "Arrived at Patient" time**

**Process Indicator -1 "Arrived at Patient Time"**

**Process Indicator -1 "Depart Time"**

**NSW Air Ambulance Casesheet**  
 Process Indicator 9 - "Location" best reflects team arrival at patient.  
 Process Indicator 10 - "Booked time"

**TREATMENT AT HOSPITAL PRIOR TO TRANSPORT**

**TREATMENT DURING FLIGHT**

**RESPIRATORY**

**ADDITIONAL**

**MONITORING**

**FLUID BALANCE**

**GLASSGOW (GMA) SCALE**

**VENTILATOR OBSERVATIONS**

**KEY LOG**

**OTHER**

## CareFlight Patient Treatment Record (relevant to PI-9)

**CareFlight Patient Treatment Record**

**Date**  **Time**  **Activated** ☐ **PI Contact** ☐ **Depart Scene** ☐ **Destination**

**Patient Name**  **Address**  **DOB**  **Approx. age**  **Approx. weight**  **Incident no.**  **Reason for patient contact delay**  **Distance landing zone to scene** ☐ < 50m ☐ 50-200m ☐ >200m

**Incident details** **Location**  **Description**

**Signs / treatment prior to CareFlight contact**  **Drug**  **Dose**

**CareFlight assessment at first contact**

Airway	Breathing	Circulation	Disability
<input type="checkbox"/> Normal	HR	E / J4	Pupils
<input type="checkbox"/> Fast	SBP	M / J5	Right
<input type="checkbox"/> Slow	DBP	V / J5	Left
<input type="checkbox"/> Agonal	Perfusion	GCS / J5	Size mm
<input type="checkbox"/> Apnoeic			Size mm

☐ No vital signs at first contact

**Ultrasound assessment**

Right lung	Cardiac
<input type="text"/>	<input type="text"/>
Left lung	P. Symphysis
<input type="text"/>	<input type="text"/>
Abdomen	Other
<input type="text"/>	<input type="text"/>

**Allergies and Adverse Reactions (ADR)**

☐ Nil known ☐ Unknown (tick or complete below)

Medicine (or other)	Reaction/Type/Date	Initials	Medicine (or other)	Reaction/Type/Date	Initials
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Once only medications**

Medicine (print generic name)	Route	Dose	Time of dose	Prescriber Signature
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**IV fluid administration (including blood / products)**

No.	Type of fluid (including strengths)	Amount	Time	Additions to fluid / PBC unit No.	Prescriber signature	Start time	Finish time	Total infused	Sign
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Airway**

Anaesthesia time	Final airway
<input type="text"/>	<input type="text"/>
Number of attempts	Nil required <input type="checkbox"/>
Best C & L grade	OPA/NPA <input type="checkbox"/>
ETT size	IMA <input type="checkbox"/>
Cuffed	ETT <input type="checkbox"/>
On at teeth	Needle cric <input type="checkbox"/>
Time airway secure	Surgical <input type="checkbox"/>

**Monitoring**

SpO <sub>2</sub>	ETCO <sub>2</sub>	ECG	NIBP	Temp	Other
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**PI-1: Depart time** ☐ **Confinement** ☐ **Compression** ☐ **Duration**  mins

Ref: MS-609-05 Date Effective: 11/11/2014 Page 1 of 2



## Aeromedical Retrieval Record (relevant to PI9 and PI10)

The form is an Aeromedical Retrieval Record. It contains several sections:

- MISSION CATEGORY:** Includes checkboxes for INTERHOSPITAL, SEARCH & RESCUE, and MODE OF TRANSPORT (ROAD, FIXED WING, HELICOPTER, F.W. HELICOPTER, OTHER).
- RETRIEVAL TEAM NAMES AND DESIGNATIONS:** Fields for TITLE, Family Name, SEX, AGE, and STATUS.
- CLINICAL RECORD:** Includes checkboxes for TRAUMA, MEDICAL, and other clinical conditions. It also has sections for PRE-EXISTING ILLNESS, MEDICATIONS, and ALLERGIES.
- TREATMENT PRIOR TO RETRIEVAL TEAM:** Includes checkboxes for ORIVICAL COLLAR, INTUBATION, IPPV, PEEP, CHEST DRAIN, CATHETER, and others.
- MONITORING:** A grid for recording vital signs over time.
- GENERAL COMMENTS:** A section for additional notes.
- PATIENT FOLLOW-UP/OUTCOME:** Includes checkboxes for CRITICAL EVENT, DIED DURING TRANSFER, NOT TRANSFERRED, and others.

Red arrows point to the 'FIRST CONTACT' and 'AT PATIENT' fields. Callouts indicate that Process Indicator 10 - 'First Contact' best reflects booking time, and Process Indicator 9 - 'At patient'.

**PI 1 - Depart time**

**NSW Ambulance HEMS Retrieval Record**  
Process indicator 10 - "First Contact" best reflects booking time

**NSW Ambulance HEMS Retrieval Record**  
Process indicator 9 - "At patient"

## South Care Retrieval Case Sheet (relevant to PI9-PI10)

**SOUTH CARE RETRIEVAL CASE SHEET**

**Left Form Sections:**

- Date:** [ ]
- First Name:** [ ]
- Emergency:** [ ]
- Room/Room:** [ ]
- Depart Date:** [ ]
- At Patient:** [ ]
- Depart Name:** [ ]
- At Destination:** [ ]
- Behaviour:** [ ]
- Patient Category:** 1 2 3 4 Please circle
- Presenting Problem/Diagnosis:** [ ]
- Clinical Information:** [ ]
- Pre-Retrieval Treatment:**
  - A. LMA [ ]
  - B. LMA [ ]
  - C. LMA [ ]
  - D. LMA [ ]
  - E. LMA [ ]
  - F. LMA [ ]
  - G. LMA [ ]
  - H. LMA [ ]
  - I. LMA [ ]
  - J. LMA [ ]
  - K. LMA [ ]
  - L. LMA [ ]
  - M. LMA [ ]
  - N. LMA [ ]
  - O. LMA [ ]
  - P. LMA [ ]
  - Q. LMA [ ]
  - R. LMA [ ]
  - S. LMA [ ]
  - T. LMA [ ]
  - U. LMA [ ]
  - V. LMA [ ]
  - W. LMA [ ]
  - X. LMA [ ]
  - Y. LMA [ ]
  - Z. LMA [ ]
- Assessment:**
  - A. [ ]
  - B. [ ]
  - C. [ ]
  - D. [ ]
  - E. [ ]
  - F. [ ]
  - G. [ ]
  - H. [ ]
  - I. [ ]
  - J. [ ]
  - K. [ ]
  - L. [ ]
  - M. [ ]
  - N. [ ]
  - O. [ ]
  - P. [ ]
  - Q. [ ]
  - R. [ ]
  - S. [ ]
  - T. [ ]
  - U. [ ]
  - V. [ ]
  - W. [ ]
  - X. [ ]
  - Y. [ ]
  - Z. [ ]

**Right Form Sections:**

- Procedures:**
  - A. LMA [ ]
  - B. LMA [ ]
  - C. LMA [ ]
  - D. LMA [ ]
  - E. LMA [ ]
  - F. LMA [ ]
  - G. LMA [ ]
  - H. LMA [ ]
  - I. LMA [ ]
  - J. LMA [ ]
  - K. LMA [ ]
  - L. LMA [ ]
  - M. LMA [ ]
  - N. LMA [ ]
  - O. LMA [ ]
  - P. LMA [ ]
  - Q. LMA [ ]
  - R. LMA [ ]
  - S. LMA [ ]
  - T. LMA [ ]
  - U. LMA [ ]
  - V. LMA [ ]
  - W. LMA [ ]
  - X. LMA [ ]
  - Y. LMA [ ]
  - Z. LMA [ ]
- Observations:**
  - A. [ ]
  - B. [ ]
  - C. [ ]
  - D. [ ]
  - E. [ ]
  - F. [ ]
  - G. [ ]
  - H. [ ]
  - I. [ ]
  - J. [ ]
  - K. [ ]
  - L. [ ]
  - M. [ ]
  - N. [ ]
  - O. [ ]
  - P. [ ]
  - Q. [ ]
  - R. [ ]
  - S. [ ]
  - T. [ ]
  - U. [ ]
  - V. [ ]
  - W. [ ]
  - X. [ ]
  - Y. [ ]
  - Z. [ ]
- Significant investigations:** [ ]
- Pre-Retrieval advice:** [ ]
- Working diagnosis/clinical issues:** [ ]
- Critical Events/Comments:** [ ]
- Medical Officer Signature:** [ ]
- Paramedic Signature:** [ ]

**Callout Boxes:**

- Southcare Retrieval Casesheet**  
Process indicator 10 - "First Notice" best reflects booking time.
- Southcare Retrieval Casesheet**  
Process Indicator 9 - "At patient"

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## TRISS calculation

Sourced from: <http://www.trauma.org/archive/scores/triss.html>

The survival prognosis is computed based on the below logarithmic regression equation and formulas: Survival probability =  $1/(1 + e^{-b})$

where  $b = b_0 + b_1 \times \text{RTS} + b_2 \times \text{ISS} + b_3 \times \text{AgeIndex}$

Based on the table with the indices used:

	Blunt	Penetrating
b0	-0.4499	-2.5355
b1	0.8085	0.9934
b2	-0.0835	-0.0651
b3	-1.743	-1.136

The two resulting formulas for b are:

- $b_{\text{Blunt}} = -0.4499 + 0.8085 \times \text{RTS} - 0.0835 \times \text{ISS} - 1.7430 \times \text{Age Index}$
- $b_{\text{Penetrating}} = -2.5355 + 0.9934 \times \text{RTS} - 0.0651 \times \text{ISS} - 1.1360 \times \text{Age Index}$

TRISS takes account of patient age in an Age Index that is:

- 0 – for patients below 55;
- 1 – for patients 55 and above.

Collector system automatically calculates the TRISS value as shown below.

Demographic Injury Prehosp Ref Facility 1 Ref Facility 2 Pt Tracking ED Procedures Diagnoses Outcome QA Memo ITIM

Injury Narrative Coding Section ICD10 AM Comorbidities Complications

Coding Module ISS 57 NISS 66 TRISS 0.186

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