

# ED Senior Assessment & Streaming model evaluation

Hospital and Local Health District: Calvary Mater Newcastle – Hunter New England Local Health District

## 1. Overview of the implementation of ED Senior Assessment and Streaming (EDSAS)

*Please provide a concise overview of why you applied for funding to implement the EDSAS model. Was there any background to process redesign in your ED that led you to deciding to implement the EDSAS model?*

The Emergency Department (ED) Senior Assessment and Streaming (SAS) Model of Care (MoC) is focused on patients that arrive to the ED with an Australasian Triage Scale (ATS) category of 3, 4 or 5. The Calvary Mater Newcastle (CMN) ED's approximate annual presentations for ATS category 3, 4, and 5 patients consists of 27 967. This equates to 87% of all presentations to the CMN ED and 76% of all admissions that occur within the CMN ED. It is clearly evident through the data that there is a high volume of ATS category 3, 4 and 5 patients presenting to the CMN ED annually and is also associated with a high admission rate which would support the introduction of the SAS MoC.

The NSW Health Emergency Department Workforce Research Project Final Report and the Emergency Department Workforce Analysis Tool were developed to facilitate a consistent approach to planning and implementing an ED workforce with an appropriate skill mix capability. Principles and guidelines were also developed for different models of care. This evidence based research identified the cohort of patients presenting to the CMN ED is unique due to the classification of metro, with moderate activity, high complexity and high admission rate. The research also supports the Senior Assessment and Streaming MoC as part of a MoC profile for the CMN ED.

The CMN ED Executive team applied for EDSAS MoC funding as an opportunity for multifaceted improvements for not only the patients but provide additional support for ED staff and marked improvements in the overall hospital NEAT target. The benefits of having a SAS MoC will optimise ED throughput through early senior medical assessment, early initiation of treatment, appropriate ordering of tests and disposition decision often following triage. This allows streaming of patients to the most appropriate clinical area (this may be within the CMN ED, ward bed/clinic or external service) to complete their care, creating flow and bed capacity in the ED.

The CMN ED has already implemented the Triage MoC, Resuscitation MoC and Emergency Short stay Unit (ESSU) MoC with great success. This is evident through significant improvements to the provision of care to our patients as well as improvements in our NEAT performance and KPI's. The CMN ED Executive believes that the addition of the SAS MOC would be just as successful and an essential phase to achieve the NEAT 2015 target.

## 2. Objectives of the implementation of EDSAS

*Please state the objectives you set out to achieve with implementation of the EDSAS model, was there any change to this during the project?*

The objective the CMN ED set out to achieve of the EDSAS MoC included:

- Development of a localised processes for the introduction of the EDSAS MOC in alignment with the principles of the EDSAS MOC Toolkit to optimise patient flow through the ED and manage increased demand for emergency services

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- Ensure the infrastructure for the SAS MoC is ready to be implemented when funding is secured
- Trial the developed EDSAS MoC in the CMN ED (1 day trial) to ensure the MoC, processes and forms are appropriate and revised where needed
- Development of a localised processes for the introduction of the Fast Track MoC in alignment with the principles of the Fast Track MOC Toolkit to optimise patient flow through the ED and manage increased demand for emergency services
- 2 Day training course was developed and held for Fast Track to build a specialised group of staff who could continue to efficiently and safely manage our Fast Track patients, as well as improve our non-admit NEAT target
- Minor works- relocation of the bereavement room (to a more suitable location, not directly across from the resuscitation bay) to allow for an internal patient waiting room called 'Results Pending Waiting Room' to provide additional flow opportunities for patients awaiting d/c summaries, waiting on scripts etc.
- Improved quality outcomes for our patients such as timely access to safe and quality healthcare, early treatment and early risk stratification
- Decreased LOS in CMN ED
- Improved patient flow
- Improved NEAT target performance

Unfortunately due to our limited FACEM 3.5 FTE base coverage (well below the average of hospitals with similar classifications of metro, with moderate activity, high complexity and high admission rate) we were unable to implement the EDSAS MoC without substantial additional funding. The EDSAS MoC would require recruitment of additional 3.03 fulltime equivalent (FTE) staff specialists, 2.47 FTE nurses and 2.47 FTE technical assistant staff. A business case was submitted to the executive for the implementation of the EDSAS MoC, to date the CMN ED is yet to receive any additional funding for its implementation.

### 3. Scope of the implementation and EDSAS model used

*What were the specifics of the EDSAS model you implemented in your ED? In what ways did you deviate from the documented NSW EDSAS model and why? How did you determine the elements of the model that would suit your ED's purposes?*

As stated above, the CMN ED is unable to implement the EDSAS MoC due to insufficient FAECM, nursing and technical assistant coverage.

The CMN ED SAS MoC is aligned to the toolkit. The only differences from the toolkit were:

- Hours of operation which would be 0900-2100 based on our data analysis of peak periods of activity in our ED
- The Streaming Zone Form was modified slightly from the toolkit
- The CMN ED decided not to use an Early Treatment Zone Form, instead to continue to use the triage sheet for documentation

The CMN ED were able to organise a trial for one day. Below is a report of the day, what we found and what worked:

- i.PM needs to be updated to have SAS Medical Triage entered
- Require holders in the SAS Zone for gloves

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- The option of a curtain between the two chairs would be preferable, patients had to be moved to the CIN room to attend ECG's
- There is no room for the suction canister, would require minor works to alter area
- Still awaiting minor works (remove of carpet and the laying of vinyl) to occur in the current family room. The current family room will then move to the interview room. We will then require the purchase of additional chairs to place in the new internal waiting room named "Results Pending Waiting Room" (this has now been completed)
- The addition of a computer in the streaming zone would assist the SAS Nurse to log patient movements and medical triage on the i.PM system
- The addition of a DECT phone or fixed phone in the streaming zone would assist with communication between the shift co-ordinator and SAS Nurse. A phone is also required for the SAS doctor organise radiology imaging and communicate with consultant external to the ED
- The SAS Nurse/Shift co-ordinator should liaise with the NMCR at commencement of shift to determine bed availability in MAU for direct streaming capacity
- The SAS Nurse should continue to communicate with shift co-ordinator regarding bed availability in the ED/ESSU- added to MOC document
- Ambulance offloads should not be delayed for streaming if an ED bed is available and the department has low activity. The triage in liaison with the SAS nurse and shift co-ordinator, needs to use their discretion in order to ensure the flow of the department continues- added to MOC document

Overall the SAS trial day was a success. All related parties were notified in the change of processes for the day including NSWAS, Hospital and ED Executive, NMCR, ED staff and clerical staff. The processes worked as planned. The form was suitable, no changes required. Staff adapted well to the change, no complaints. The staff appeared positive and supportive about the change in process and could see the instant benefits. The new vital machine did not work, had to be returned to biomed, it was returned to supplier and replaced. The day had less activity then I would have liked for the trial. However the ED was in access block and with streaming we still managed to have no ambulance offload delays and the ED appeared to flow efficiently.

#### 4. Methodology used in the implementation

*This section should evaluate the success or otherwise of the methodology used to implement the model of care. What were the barriers and enablers to project success or otherwise? What was your communication strategy and how effective was it? Please ensure you include discussion of your use of the EDSAS Implementation Toolkit. To what extent was it useful in your implementation of the EDSAS model? Are there any areas that you would recommend need revision? To what extent did you use the templates in the Appendix section? What recommendations would you offer other EDs about to commence implementation using the toolkit?*

##### Barriers

- Lack of FTE FACEM coverage
- Funding for implementation of EDSAS MoC

##### Enablers

- ED Executive very supportive of MoC

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- ED staff very supportive of new MoC
- NSWAS presenting during the 1 day trial were supportive of the new MoC

## Communication Strategy

I have attached a copy of the communication plan for the project. The communication strategy consisted of constant liaison with management, external parties and general floor staff via:

- Email
- Face to face
- Telephone conversations
- Meetings
- Notes left in the staff communication book
- In-servicing

The communication strategy approach was effective. The nature of shift work creates difficulties in capture all staff in a face to face format to inform them of the projects aims, progress and achievements. However through email and the nursing communication book, meant an alternate method to capture all staff.

The EDSAS Implementation Toolkit was extremely useful. The toolkit gave a great background around the development and usefulness of the EDSAS MoC. The toolkit was easy to follow in a step by step approach including checklists which relieved a lot of anxieties as a first time project officer. The toolkit gave an informative design process that could be modified depending on the size, layout and activity of the department. The templates in the appendix were useful for structured formats to produce professional documents.

As part of the project I used the example implementation plan and schedule, the work roles and responsibilities in formulating the EDSAS MoC document and the EDSAS Streaming Zone Form.

Personally I believe the EDSAS MoC and Toolkit was a very professional and user friendly document.

## 5. Measures of success of the implementation of EDSAS

*Please include data as follows pre and post implementation of EDSAS (as indicated on page 27 of the NSW ED Models of Care 2012 document)*

- *Waiting time for treatment by triage category.*
- *Average ED patient Length of Stay (LOS) and LOS for triage categories 3–5*
- *Number of 'did not waits'*
- *National Emergency Access Target (4 hour target)*
- *Ambulance Transfer of care time*
- *Clinical indicators such as time to analgesia and time to antibiotics*
- *Clinical outcomes for high volume cases (for example chest pain).*
- *Patient satisfaction and complaints*
- *Staff feedback*
- *Occasions when the model is activated/opened.*

*Please include analysis of your data to demonstrate that objectives were met and impact of the implementation of the EDSAS model.*

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Currently the CMN ED is unable to implement the EDSAS MoC due to the substantial additional and recurrent funding that would be required for the recruitment of additional staff. A business case has been submitted and currently sits with the Hospital Executive Team. The Hospital Executive Team supports the concept but due to the additional resource requirements plan to deliberate further at the Service Agreement Discussions.

I have attached the data analysis for the project.