

ED Senior Assessment & Streaming model evaluation

Hospital and Local Health District: Blacktown Hospital Western Sydney Local Health District

GS13/359

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?

Blacktown ED sought funding for ED Senior Assessment and Streaming (EDSAS) as we were experiencing challenges in achieving the NEAT target and meeting triage benchmark KPI's for ATS category 3 and 4 patients which in 2011/12 accounted for more than two thirds of overall presentations (68%).

BMDH operates as one hospital across two campuses; the Blacktown and Mount Druitt campuses. Between 2005/06 and 2011/12 overall activity for BMDH emergency services has grown by an average of 3.2% per annum. By 2021, BMDH emergency activity is projected to grow by 44% overall or by an average 3.3% per annum to approximately 93,900 presentations (BMDH Clinical Services Plan, 2010). Much of this growth is expected to present to the Blacktown Campus as one of the main catchment areas for the Campus is part of the developing North West sector.

With the implementation of EDSAS this would enable us to streamline ED processes, eliminating non-value added processes in the patient journey by providing senior medical assessment immediately after triage.

The ED patient's journey will be expedited through improving efficiencies in registration and triage and more importantly through early senior medical assessment. This would result in early treatment decisions, appropriate diagnostic requests and early disposition decisions with an expected impact on the National Emergency Access target (NEAT), triage wait times, decreased ED length of stay and improved patient safety and experience.

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?

Blacktown emergency department objectives as agreed upon by project team were as follows:

- Decrease did not waits
- Improve patient and carer experience
- Improve triage category 3 and 4 benchmarks
- Streamline Emergency processes
- Improve Transfer of Care (TOC)
- During implementation of EDSAS we have not deviated from our initial objectives.

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?

Blacktown Emergency followed the 4 phases of the implementation process contained in the EDSAS MoC toolkit. The only deviation was to the times that EDSAS would run based on peak presentations. Blacktown EDSAS model runs 16 hours per day 7 days per week 0700hrs – 2200hrs. The only exclusion from the model where ATS category 1 patients.

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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?

The enablers that helped Blacktown successfully implement EDSAS were:

- Executive sponsor support fortnightly meetings were attended with the Executive sponsor, meeting with the General Manager regarding progress of EDSAS, a strong project team with weekly meetings, education and willingness of nursing staff to embrace change. Patient's staff satisfaction surveys recommendations of the outcomes.
- Nursing staff signed off additional position descriptions for new areas within the department TCA nurse PIT nurse and Streaming coordinator.

The barriers Blacktown encountered during implementation were:

- Delay in start date by three weeks, education of medical staff, ingrained culture inability to accept change, the practice of defensive medicine.

Communication throughout the project implementation was via weekly meetings, email, direct communication, in services for staff, newsletters, patient brochures and posters in the ED waiting room. Communication is a major component during implementation, the EDSAS toolkit suggested newsletters for updates. Newsletters were distributed throughout the department so as all staff were aware of EDSAS progress.

The EDSAS toolkit was invaluable throughout the project it gave clear direction for each phase of the process. The appendix section was very useful aided the setup of templates used in the project.

My recommendations for other EDs are follow the toolkit through all the phases there is a wealth of information which will aid in the success of implementation.

5. Measures of success of the implementation of EDSAS

The data sourced for analysis was from FirstNet, Health Information Exchange (HIE) for the period 2008-2012. Patient and Staff satisfaction surveys were also carried out in the Emergency Department.

A range of data was utilised this included Presentations by Triage category, Triage wait times, Presentations by time of day, day of week, Transfer of Care (TOC), Did Not Waits, Average LOS by Triage Category.

An increase in ATS Triage Category 2 has occurred with the implementation of the Chest Pain, Sepsis and Stroke pathways. In July 2012 Blacktown ED undertook intensive Triage education for Mental Health patients; after it was identified these patients were being under triaged this also impacted on our ATS category 2.

Blacktown ED presentations for 2012, was 36979 an increase of 2082 patients from 2011 with an admission rate of 23.3%. Representations to ED within 48 hours, 1549 in 2012.

Blacktown ED's peak times for presentations 1100hrs – 1400hrs and again between 1800hrs-2000hrs. Peak presentations by day of the week Friday, Saturday, Sunday and Monday.

Average to time seen by Nurse or Doctor 2012: HH:MM:SS

Triage Cat 1 - 00:00:16

Triage Cat 2 – 00:08:00

Triage Cat 3 – 00:50:39

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Triage Cat 4 – 01:01:48

Triage Cat 5 – 00:58:10

Average length of stay (LOS) hours by Triage category 2012:

Triage 1 – 10

Triage 2 – 10

Triage 3 – 10

Triage 4 – 7

Triage 5 – 3

Presentations by Triage category 2012:

Triage 1 – 419

Triage 2 – 7599

Triage 3 – 11264

Triage 4 – 13064

Triage 5 – 4613

Ambulance off Stretcher Time (TOC) for the period: 01/03/11 – 31/12/12

Total number of Ambulance presentations – 21387

Off Stretcher within 30 minutes - 10795 - 50%

Off Stretcher within 1 hour – 6769 – 32%

Off Stretcher within 2 hours – 2262 – 11%

Off Stretcher within 3 hours – 631 – 3%

Blacktown has seen a decrease in patients who did not wait (DNW). In 2009 4383 patients DNW to be seen. In comparison to 2012 were 2439 patients DNW, a decrease of 1944 6.5%

Top 2 DRG's for Blacktown ED

Abdominal Pain – 2686 (28%)

Chest Pain – 2301 (24%)

NEAT performance for Blacktown ED was 36.17% in July 2012 we have shown a slight improve in March 2013 was 44.28% this is well below the 76% benchmark.

With only a small sample of data post implementation of EDSAS Model of Care we have shown an improvement in our average seen times.

Average to time seen by Nurse or Doctor 22/07/2013-11/08/2013 HH:MM:SS

Triage Cat 1 - 00:00:00

Triage Cat 2 – 00:06:00

Triage Cat 3 – 00:30:00

Triage Cat 4 – 00:43:00

Triage Cat 5 – 00:44:00

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In comparison to average seen times for ATS category 3 and 4 patients in 2012 we have shown an improvement in ATS cat 3 of 20:39. Similar results for ATS cat 4 of 58:48

Average length of stay (LOS) hours by Triage category 22/07/2013-11/08/2013

Triage 1 – 13

Triage 2 – 12

Triage 3 – 8

Triage 4 – 6

Triage 5 – 2

A decrease of 2 hours for ATS category 3 and 1 hour for ATS category 4 in comparison to 2012.

Transfer of care (TOC) with 777 presentations for the period 22/07/2013-11/08/2013 with 431 Off Stretcher <30 minutes 55% TOC.

For the period of 22/07/2013-11/08/2013 we had 2169 presentations 1122 < 4hours meeting NEAT 52% which is an improvement on March 2013 44.28% which remains below benchmark 76%.

During week 1 of EDSAS 22/7/2013 – 28/7/2013 our presentations for that period were 687 a total of 188 (27.3%) patients were streamed.

Week two presentations 29/7/2013 – 2/8/2013 535 patients presented of which 215 (40.1%) were streamed.

6. Discussion

Was the implementation of EDSAS successful, why or why not? What were the lessons learnt during this implementation? What impact has this model had on operational management of your ED? What would you do differently next time and why? What strategies did you put in place to ensure sustainability of EDSAS?

After running the EDAS model for a three week period the Emergency Department has seen positive results despite access block. Staff have adapted well to the changes. Patients are being risk stratified early; front end processes have been streamlined. Early identification for discharge stream cohort of patients.

Some lessons learnt for Blacktown ED were:

- Data reports specific to data collection for EDSAS need to be built by FirstNet prior to implementation.
- Longer lead times for implementation
- Funding not split over 2 financial years as funding lost, funding does not roll over to new fiscal year.
- Medical Education follow up discussion, ensure attendance to education sessions
- Issues still remain with medical officers picking up patients post streaming

7. Conclusion

Where to from here? Please include plans for further evaluation of the impact of EDSAS on your ED and sustainability of this model in your ED.

The EDSAS data will be monitored on a monthly basis to ensure continuous improvement of the model. Blacktown ED recruited to its Nursing establishment of Endorsed Enrolled Nurses to ensure staffing coverage 16hr / 7dpw to sustain the model.

Blacktown has seen positive results in the first 3 weeks of EDSAS implementation despite access block. At this time there have been no reported complaints in regards to waiting times to see a doctor in Emergency.