

# Level 1 Rapid Infuser Educational Video

Dr Michael Connelly, Dr Faye Dagger, Graham Rowe, Sam Brown



## 1. Background

The Level 1 Infuser is a medical device used for the mass transfusion of large volumes of warmed fluid or blood into a patient for the prevention and treatment of shock. A patient is in shock when their circulation is not delivering enough oxygen to their tissues for them to function normally. Common presentations to the emergency department where this may occur include trauma, placental abruption and conditions that cause major blood loss. When used correctly the infuser can rapidly improve a patient's circulatory status, which avoids the complications of cold fluid administration such as hypothermia and poor blood clotting.

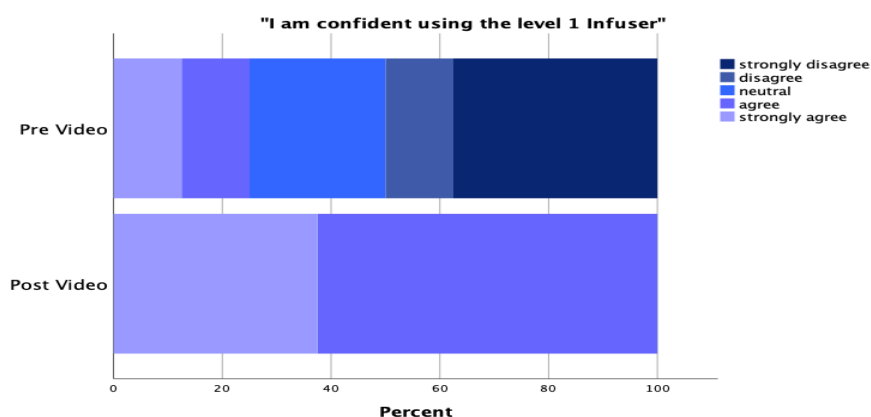
## 2. Problem

The Level 1 Infuser is indicated for use in acutely unwell patients who require timely intervention. Set up of the device is more complex than simple fluid administration, and the situations in which it would be beneficial are infrequent in the Emergency Department; nursing staff are therefore not confident in its use. As a result of this the Level 1 Infuser is underutilised, leading to suboptimal patient care.

## 4. Results

All new nurses starting in the Emergency department are now trained on the set up and use of the level 1 infuser using the new video resource. The video has been posted on YouTube and a link to the video has been made available on the intranet. This will allow staff to re-watch it whenever needed.

The post and pre video survey asked staff to respond to the statement "I am confident using the Level 1 Infuser" using a Likert scale of "strongly agree" to "strongly disagree". It found a statistically significant increase in 87% of respondents ( $p=0.017$ ). All respondents either "strongly agree" or "agree" with the statement after watching the video.



## 5. Conclusion

The level 1 infuser is indicated for use in a small group of patients who present to the emergency department acutely unwell. Its setup and use is more complex than simple fluid administration but it has clear advantages such as faster fluid administration, reduced rates of hypothermia and improved blood clotting. Due to the difficulty in set up and infrequent deployment staff are not confident in its use - leading to its under-utilisation. In order to improve this a video educational resource was produced; this has been shown to increase staff confidence in the level 1 infuser. This video can be accessed by staff at any time.

## 3. Method

The aim of this project was to produce a trust specific educational resource on how to set up and use the Level 1 Infuser. This resource would then be used to train staff in the set up and use of the Level 1 Infuser and be accessible on the intranet for use as a refresher when required. In order to achieve this a short training video was produced. It was filmed on location in the Emergency Department and included precise instructions on all stages of the set up and running of the device. To assess confidence in its use, a questionnaire was completed by staff before and after watching the new video.



### Survey Responses

|   |                             | N |
|---|-----------------------------|---|
| Pre Video Confidence Vs Post Video Confidence | Less Confident <sup>a</sup> | 0 |
|   | More Confident <sup>b</sup> | 7 |
|   | Unchanged <sup>c</sup>      | 1 |
| Total   |                             | 8 |

- a. Pre Video Confidence < Post Video Confidence
- b. Pre Video Confidence > Post Video Confidence
- c. Pre Video Confidence < Post Video Confidence



## 6. Watch the Video

Scan this QR code with your smart phone camera to watch the video