

Evaluation of the Fresenius Amicus[™] Machine for Therapeutic Apheresis Treatments

Bridget Hughes - Nurse Practitioner Therapeutic Apheresis Services Leeds 2017

Caring Expert Quality



Content

- Introduction
- Evaluation
- Results
- Patient and User Experience
- Conclusion



Fresenius Amicus[™] Apheresis Device

- Automated Cell Separator Device
- Continuous flow centrifugation technology
- Used worldwide for apheresis procedures
- Study aim was to evaluate the technology as a multipurpose apheresis platform

•Evaluation period was November 2016 – April 2017



How did we evaluate.....



10 TPE treatments

- 1 plasma volume with 4.5% HAS or octaplas
- 7 Red cell exchanges
 - volume of red cells to achieve the target HbS post procedure
- 1 depletion/exchange
- target Hb and HbS post procedure
- 3 MNC collections
 - aimed to process 2.5TBV
- Two nurses were trained and supported by Fresenius

All patients were adults

Data collected



- TPE's Pre and post FBC and fibrinogen
- RCX Pre and post FBC and HbS were taken
- MNC Volume, MNC, RBC, Plt, CD34 count in collected product and Collection Efficiency CE2 of collection
- User evaluation completed
 - device issues
 - adverse events
 - operator concerns



Results

<u>TPE</u>

| Post WCC | ↓ 0.49 |
|----------------|--------|
| Post Platelets | ↓ 15.2 |
| Fibrinogen | ↓ 1.37 |

<u>RCX</u>

| Mean Average Pre HbS | 44.6 |
|-----------------------|--------|
| Mean Average Post HbS | 13.0 |
| Post WCC | ↓ 2.10 |
| Post Platelets | ↓ 163 |
| Fibrinogen | ↓ 0.57 |

Patient and User Experience



Patient Experience

3 patients experienced adverse events

- 1 mild vasovagal reaction
- 1 moderate vasovagal reaction
- 1 moderate citrate toxicity requiring IV Calcium replacement

User experience

The Amicus[™] was easy to use with minimal operational issues

- harness was straightforward to load

- the display screen instructions were clear and straightforward to follow

- machine manoeuvrability could be better



Conclusion



- Fresenius Amicus[™] proved to be an effective apheresis system
- Targets were achieved in both TPE and RCX procedures
- Post procedure changes in WCC, platelets and fibrinogen were within expected ranges for each procedure
- Procedures were well tolerated
- Nurses found the equipment easy to use.



Thank you for listening

Any questions?