Introduction

- Little information has been published about actual safety procedures and quality indicators in the provision of apheresis treatments.
- Our goal was to collect patient data at each apheresis treatment in an effort to:
  - improve patient safety
  - enhance communication among patient care teams,
  - understand the nursing care given,
  - optimize clinical outcomes for patients, and
  - partner with hospitals for optimal Joint Commission survey results.
- The nurses of a large dialysis organization (LDO) completed an Acute Clinical Outcome Indicators (ACOI) form for each apheresis treatment within an apheresis program for 2010.
- We present key indicators of clinical outcomes and process of care measures using the ACOI form data from each treatment.

Methods

- Twelve hospitals contracted with a large dialysis organization submitted data for their apheresis programs (Table 1).
- Data were collected by 6 apheresis RNs between January 2010 and December 2010 (Figure 1).
- Data were reported and assessed monthly.
- Random chart audits were performed to ensure consistency.
- As the majority of treatments were performed in the outpatient setting, responses related to hospital communication were not reported in this poster.
- Questions were based on 2010 Joint Commission Standards.

Results

Table 1. Treatment Distribution in the Apheresis Programs

<table>
<thead>
<tr>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Treatments</td>
<td>1206</td>
</tr>
<tr>
<td>Therapeutic Plasma Exchanges</td>
<td>1157</td>
</tr>
<tr>
<td>Red Cell Exchanges</td>
<td>19</td>
</tr>
<tr>
<td>White Cell Depletions</td>
<td>27</td>
</tr>
<tr>
<td>Platelet Depletions</td>
<td>3</td>
</tr>
</tbody>
</table>

Figure 1. Information Collected on the Acute Clinical Outcomes Form

- Diagnosis and site of vascular access
- Location of treatment within the hospital
- Vascular Access Site evaluation
  - Infection present
  - Physician notified of access problems
- Apheresis Prescription
  - Treatment completed as ordered
  - Consent obtained by physician
  - Treatment ordered for new diagnosis or recurring condition
  - Needing treatment as soon as medically possible
- Hypotensive episode during treatment
- Blood pressure stable post-treatment
- System clotted during treatment
- Patient Assessment
  - Pain assessed prior to treatment
- Medication Treatment
  - Maintenance anticoagulant delivered per pump
  - Patient Education
    - Treatment/disease education provided to patient and/or family
  - Communication
    - Pre-treatment report from hospital nurse
    - Post-treatment report to hospital nurse
  - Safety
    - Time-Out/Safety Process per LDO P&P performed
  - Lab
    - Hb < 9 m/dL
    - Physician notified of critical lab results if received during treatment time

Figure 2. Select 2010 Acute Clinical Outcome Indicators

- Signs and/or Symptoms of Infusion Present
- Assessed Pain Prior to Treatment Initiation
- Post Apheresis Vascular Access Site Bleeding ≥ 20 Minutes
- Procedure Education Provided to Patient and/or Family
- Maintenance Anticoagulant Delivered per Pump
- System Clotted During Treatment

Table 2. 2010 Acute Clinical Outcome Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2010 Goal</th>
<th>2010 Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sign and Symptoms of Infusion Present</td>
<td>&lt; 15%</td>
<td>≤ 15%</td>
</tr>
<tr>
<td>Assessed Pain Prior to Treatment Initiation</td>
<td>&lt; 60%</td>
<td>≤ 90%</td>
</tr>
<tr>
<td>Post Apheresis Vascular Access Site Bleeding ≥ 20 Minutes</td>
<td>&lt; 60%</td>
<td>≤ 5%</td>
</tr>
<tr>
<td>Procedure Education Provided to Patient and/or Family</td>
<td>≤ 90%</td>
<td>≤ 75%</td>
</tr>
<tr>
<td>Maintenance Anticoagulant Delivered per Pump</td>
<td>≤ 80%</td>
<td>≤ 20%</td>
</tr>
<tr>
<td>System Clotted During Treatment</td>
<td>≤ 100%</td>
<td>≤ 2.2%</td>
</tr>
</tbody>
</table>

Conclusions

- As the majority of treatments were performed in the outpatient setting (57.2%), responses related to hospital communication were not reported in this poster.
- Our 2010 ACOI goals were met (Figure 2).
- The ACOI form:
  - allowed tracking of pertinent clinical outcomes during apheresis treatments.
  - can be used to assure patients, payers and healthcare providers of the value of the prescribed therapy.

Limitations

- This 12-month data set will be used to establish a benchmark to allow assessment of future quality initiatives.
- Development of Continuous Quality Improvement projects to improve patient safety and enhance clinical outcomes.

Next Steps

- Our sincere appreciation to the acute nurses who work every day not only to take care of patients but also to ensure the extensive data collection on which our work is based. We thank DaVita Clinical Research (DCR®), and specifically acknowledge Karen Spanch, PhD of DCR for editorial contributions in preparing the poster. DCR is committed to advancing the knowledge and practice of kidney care.

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