Introduction

• Monitoring of oral intake and output through accurate documentation of fluid balance charts is vital and regarded as a critical component in care of acutely ill hospitalised patients.
• Inaccurate monitoring and poor documentation can result in missed recognition of warning signs of dehydration, leading to poor patient outcomes including prolonged hospitalisation and increased mortality.

Problem

Accuracy and appropriateness of intake and output monitoring for acutely ill hospitalised patients is not well-documented.

Methodology

A retrospective review of electronic fluid balance charts documented between January 2017 and July 2017. For each patient on intravenous fluid therapy, the following was assessed:

Whether monitoring was clinically indicated according to operational definitions of clinical indications by Salisbury NHS Foundation.

Whether monitoring and documentation is accurate.
- Each quantifiable amount (e.g. urine 100 ml) entered in intake and output chart was considered as one accurate count.
- Each non-quantifiable entry (e.g. void in toilet) documented was considered as one inaccurate count.
- Accuracy rate of documentation was the total accurate counts divide by total intake and output counts (in %).

Results

Total number (N) of patients reviewed 2199

Patients on monitoring N=1497 (68.1%)
  Accuracy 21%

Patients with no clinical indication N=328 (21.9%)

Patients with clinical indication N=1169 (78.1%)
  Accuracy 25%

Prescribed by Doctor N=59 (18%)
  Accuracy 55%

Initiated by Nurses N=269 (82%)
  Accuracy 42.4%

Inaccurate documentation with no quantifiable amount:
1. “void in toilet” (93.3%)
2. “diaper wet” (4.6%)
3. “BO x _times” (bowel open) (3.0%)
4. “vomit x _times” (0.1%)

Conclusions

1. Lack of clear guidelines for monitoring:
   - Design an intake and output monitoring algorithm to identify those with high-risk factors and require strict monitoring.

2. Need to improve documentation accuracy:
   - Improve staff knowledge with regular training
   - Regular auditing

3. To improve awareness among patients on the importance of monitoring and engage/empower patients in the process
   - Visual aids in wards

Lim Siew Hoon, Singapore General Hospital
Lim Mei Ling, Neuroscience Research Australia
Fazila Abu Bakar Aloweni, Singapore General Hospital
Ang Shin Yuh, Singapore General Hospital