Data Analysis: Scheduled/Unscheduled Care Comparison - August 2017 Reporting

Optimisation of intravenous fluid prescribing: framework for changing practice through education and audits

**Key:** RAG rating **<=50%** Needs urgent attention **>50 and <80%** Requires attention **>=80%** Under Control

|  | | **Patient demographics** | | | | **IV fluid plan** | | | | | | | **IV fluids prescribed** | | | **Appropriate type of fluid received?** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Division | Specialty | Ward | Day of IV fluid prescribed (weekend/weekday) | Patient cohort (n=?) | Documentation on PENS  (to prescribe i.v. fluids)? | Fluid status documented on PENS? | Weight recorded on PENS in last 7 days? | Has fluid balance been recorded in the last 24 hours? (P=Partial) | | UE result available in last 24 hours? | Documentation of type of fluid  to be prescribed? | Indication for fluid prescribed recorded on PENS? | Volume of Fluid recorded? | Duration recorded | IV potassium prescribed? | Maintenance | Replacement | Resuscitation |
| Unscheduled Care | Clinical Gerontology | 2B /  2Y ASU | Wday | 4 | 75% | 100% | **50%** | **Y 50%** | | **50%** | **25%** | 100% | 100% | 100% | **50%** | 100% | N/a | N/a |
| Wend | 5 | 60% | 60% | **40%** | Y | 60% | **20%** | **20%** | 100% | 100% | 100% | 60% | 75% | N/a | 100% |
| P | 20% |
| Scheduled Care | Unplanned Surgical Admissions | 2X ESAU | Wday | 2 | 100% | 100% | **50%** | Y 100% | | 100% | **50%** | 100% | 100% | 100% | **0%** | **0%** | 100% | N/a |
| Wend | 2 | 100% | 100% | **0%** | **P 100%** | | 100% | **0%** | 100% | 100% | 67% | **0%** | 100% | N/a | N/a |
| Scheduled Care | Cardiology | 3A | Wday | 0 |  |  |  |  | |  |  |  |  |  |  |  |  |  |
| Wend | 1 | 100% | 100% | 100% | **P 100%** | | 100% | 100% | 100% | 100% | 100% | 100% | N/a | 100% | N/a |
|  | | **Patient demographics** | | | | **IV fluid plan** | | | | | | | **IV fluids prescribed** | | | **Appropriate type of fluid received?** | | |
| Division | Specialty | Ward | Day of IV fluid prescribed (weekend/weekday) | Patient cohort (n=?) | Documentation on PENS  (to prescribe i.v. fluids)? | Fluid status documented on PENS? | Weight recorded on PENS in last 7 days? | Has fluid balance been recorded in the last 24 hours? (P=Partial) | | UE result available in last 24 hours? | Documentation of type of fluid  to be prescribed? | Indication for fluid prescribed recorded on PENS? | Volume of Fluid recorded? | Duration recorded | IV potassium prescribed? | Maintenance | Replacement | Resuscitation |
| Unscheduled Care | Infectious Diseases | 3X / 3Y | Wday | 4 | 75% | 75% | 75% | **Y** | **50%** | 100% | **0%** | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| **P** | **50%** |
| Wend | 6 | 67% | 88% | **33%** | **Y** | **33%** | 100% | **33%** | 88% | 100% | 100% | **50%** | 100% | **0%** | 100% |
| **P** | **50%** |
| Scheduled Care | Trauma & Orthopaedics | 4A / 4B | Wday | 1 | 100% | 100% | **0%** | Y 100% | | 100% | **0%** | 100% | 100% | **0%** | **0%** | N/a | 100% | N/a |
| Wend | 0 | 100% | 0% | 0% | Y 100% | | 50% | 0% | 100% | 100% | 100% | 0% | 0% | N/a | N/a |
| Scheduled Care | General Surgery | 5A / 5B | Wday | 4 | **50%** | **50%** | 100% | Y 100% | | 100% | 75% | 100% | 100% | 100% | **0%** | 100% | **50%** | 100% |
| Wend | 8 | **50%** | 63% | 100% | Y 100% | | 88% | **38%** | 100% | 100% | 100% | 75% | 86% | **0%** | N/a |
| Scheduled Care | Gastroenterology & Hepatology | 5X / 5Y | Wday | 3 | **33%** | **0%** | **33%** | **Y** | **33%** | 100% | **0%** | 100% | 100% | **0%** | 100% | **50%** | **50%** | N/a |
| **P** | **33%** |
| Wend | 2 | 100% | **0%** | 100% | Y 100% | | 100% | **50%** | 100% | 100% | **0%** | 100% | N/a | 100% | N/a |
|  | | **Patient demographics** | | | | **IV fluid plan** | | | | | | | **IV fluids prescribed** | | | **Appropriate type of fluid received?** | | |
| Division | Specialty | Ward | Day of IV fluid prescribed (weekend/weekday) | Patient cohort (n=?) | Documentation on PENS  (to prescribe i.v. fluids)? | Fluid status documented on PENS? | Weight recorded on PENS in last 7 days? | Has fluid balance been recorded in the last 24 hours? (P=Partial) | | UE result available in last 24 hours? | Documentation of type of fluid  to be prescribed? | Indication for fluid prescribed recorded on PENS? | Volume of Fluid recorded? | Duration recorded | IV potassium prescribed? | Maintenance | Replacement | Resuscitation |
| Unscheduled Care | Respiratory | 6X | Wday | 11 | 64% | **27%** | 64% | Y 91% | | 55% | **27%** | 91% | 100% | 100% | **9%** | 60% | 100% | 100% |
| Wend | 3 | 67% | 67% | 100% | **Y** | **33%** | 67% | **0%** | 100% | 100% | 100% | 67% | **0%** | **0%** | 100% |
| **P** | **66%** |
| Unscheduled Care | Diabetes & Endocrinology | 7A / 7B | Wday | 7 | 71% | **14%** | **29%** | **Y** | **0%** | 86% | **29%** | 100% | 100% | 100% | **29%** | 57% | **0%** | N/a |
| **P** | **86%** |
| Wend | 4 | 100% | **50%** | **50%** | **Y** | **50%** | 100% | **25%** | 100% | 100% | 100% | **0%** | **0%** | **0%** | 100% |
| **P** | **25%** |
| Unscheduled Care | Haemato-Oncology | 7X / 7Y | Wday | 6 | **50%** | **33%** | 83% | **Y 33%** | | 100% | **17%** | 100% | 100% | 100% | **33%** | 100% | 100% | 100% |
| Wday | 7 | 100% | **29%** | 100% | Y 86% | | 100% | **0%** | 100% | 100% | 100% | 71% | 100% | 100% | 100% |
| Scheduled Care | Vascular Surgery | 8A | Wday | 6 | 67% | 67% | 67% | **Y** | **50%** | 100% | **17%** | 100% | 100% | 100% | **17%** | 100% | 67% | 100% |
| **P** | **50%** |
| Wend | 5 | 60% | **40%** | 100% | Y | 60% | 80% | **20%** | 100% | 100% | 80% | **0%** | 100% | 100% | 100% |
| P | 40% |
|  | | **Patient demographics** | | | | **IV fluid plan** | | | | | | | **IV fluids prescribed** | | | **Appropriate type of fluid received?** | | |
| Division | Specialty | Ward | Day of IV fluid prescribed (weekend/weekday) | Patient cohort (n=?) | Documentation on PENS  (to prescribe i.v. fluids)? | Fluid status documented on PENS? | Weight recorded on PENS in last 7 days? | Has fluid balance been recorded in the last 24 hours? (P=Partial) | | UE result available in last 24 hours? | Documentation of type of fluid  to be prescribed? | Indication for fluid prescribed recorded on PENS? | Volume of Fluid recorded? | Duration recorded | IV potassium prescribed? | Maintenance | Replacement | Resuscitation |
| Unscheduled Care | General Surgery | 8X | Wday | 10 | **50%** | **20%** | 70% | Y | 70% | 80% | **20%** | 100% | 100% | 100% | **20%** | 56% | 75% | **50%** |
| P | 10% |
| Wend | 8 | **25%** | **13%** | 63% | Y 88% | | 88% | **0%** | 100% | 100% | 100% | **38%** | 63% | 100% | N/a |
| Unscheduled Care | General Medicine | 9B | Wday | 1 | 100% | 100% | 100% | Y 100% | | 100% | **0%** | 100% | 100% | **0%** | **0%** | 100% | N/a | N/a |
| Wend | 1 | 100% | 100% | **0%** | **0%** | | 100% | **0%** | 100% | 100% | **0%** | 100% | N/a | 100% | N/a |
| Unscheduled Care | Clinical Pharmacology | 9X | Wday | 1 | 100% | **0%** | 100% | Y 100% | | 100% | **0%** | 100% | 100% | 100% | **0%** | N/a | N/a | 100% |
| Wend | 1 | 100% | 100% | 100% | **P 100%** | | 100% | 100% | 100% | 100% | 100% | 100% | N/a | 100% | N/a |
| Scheduled Care | Breast Unit | 9Y | Wday | 4 | **50%** | **50%** | **50%** | Y | 75% | 75% | **0%** | 100% | 100% | 100% | **0%** | 67% | N/a | 100% |
| P | 25% |
| Wend | 0 |  |  |  |  | |  |  |  |  |  |  |  |  |  |
|  | | **Patient demographics** | | | | **IV fluid plan** | | | | | | | **IV fluids prescribed** | | | **Appropriate type of fluid received?** | | |
| Division | Specialty | Ward | Day of IV fluid prescribed (weekend/weekday) | Patient cohort (n=?) | Documentation on PENS  (to prescribe i.v. fluids)? | Fluid status documented on PENS? | Weight recorded on PENS in last 7 days? | Has fluid balance been recorded in the last 24 hours? (P=Partial) | | UE result available in last 24 hours? | Documentation of type of fluid  to be prescribed? | Indication for fluid prescribed recorded on PENS? | Volume of Fluid recorded? | Duration recorded | IV potassium prescribed? | Maintenance | Replacement | Resuscitation |
| Unscheduled Care | Urology | 8Y | Wday | 2 | **0%** | **0%** | **50%** | Y 100% | | **50%** | **0%** | 100% | 100% | 100% | **0%** | 100% | N/a | 100% |
| Wend | 2 | **0%** | **0%** | 100% | **Y** | **50%** | **50%** | **0%** | 100% | 100% | 100% | **0%** | 100% | N/a | 100% |
| **P** | **50%** |
| Unscheduled Care | Acute Medicine | AMU | Wday | 26 | 96% | 54% | 77% | **Y** | **46%** | 96% | **42%** | 100% | 100% | 100% | **19%** | 92% | 80% | 100% |
| **P** | **54%** |
| Wend | 17 | 88% | **35%** | 65% | Y | 88% | 100% | **6%** | 100% | 100% | 100% | **0%** | **44%** | 83% | 67% |
| P | 12% |

Comparative Summary of Unscheduled/Scheduled Care

**Key:** RAG rating **<=50%** Needs urgent attention **>50 and <80%** Requires attention **>=80%** Under Control

|  | **Patient demographics** | | | **IV fluid plan** | | | | | | | **IV fluids prescribed** | | | **Appropriate type of fluid received?** | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Division | Day of IV fluid prescribed (weekend/weekday) | Patient cohort (n=?) | Documentation on PENS  (to prescribe i.v. fluids)? | Fluid status documented on PENS? | Weight recorded on PENS in last 7 days? | Has fluid balance been recorded in the last 24 hours? (P=Partial) | | UE result available in last 24 hours? | Documentation of type of fluid  to be prescribed? | Indication for fluid prescribed recorded on PENS? | Volume of Fluid recorded? | Duration recorded | IV potassium prescribed? | Maintenance | Replacement | Resuscitation |
| Unscheduled Care | Wday | 62 | 77% | **45%** | 68% | F | 53% | 84% | **29%** | 100% | 100% | 95% | **48%** | 82% | 78% | 100% |
| P | 35% |
| Wend | 46 | 81% | **48%** | 65% | F | 65% | 87% | **11%** | 100% | 100% | 94% | **33%** | 57% | 67% | 91% |
| P | 24% |
| Scheduled Care | Wday | 30 | 57% | **43%** | 63% | F | 70% | 90% | **23%** | 100% | 100% | 93% | **20%** | 61% | 69% | 80% |
| P | 20% |
| Wend | 24 | 58% | **46%** | 79% | F | 79% | 79% | **25%** | 100% | 100% | 85% | **50%** | 76% | 88% | N/a |
| P | 17% |

N/a

N/a

**RESULT SUMMARY**

1. **Unscheduled Care**

Weekend  Weekday

* Total number audited: 62
* Documentation on PENS: 77%
* Documentation of fluid status: 45%
* Weight documentation: 68%
* Fluid balance complete:

- Yes 53% Partial 35%

* U&E checked: 84%
* Documentation of type of fluid prescribed: 29%
* Indication for fluid prescribed: 100%
* Volume of fluid prescribed recorded: 100%
* Duration of fluid prescribed recorded: 95%
* Cases where i.v. potassium was given: 48%
* Appropriate i.v. fluid prescribed

- Maintenance: 72%

- Replacement: 74%

- Resuscitation: 96%

* Total number audited: 46
* Documentation on PENS: 80%
* Documentation of fluid status: 48%
* Weight documentation: 65%
* Fluid balance complete:

- Yes 65% Partial 24%

* U&E checked: 87%
* Documentation of type of fluid prescribed: 11%
* Indication for fluid prescribed: 100%
* Volume of fluid prescribed recorded: 100%
* Duration of fluid prescribed recorded: 94%
* Cases where i.v. potassium was given: 33%
* Appropriate i.v. fluid prescribed

- Maintenance: 57%

- Replacement: 67%

- Resuscitation: 91%

1. **Scheduled Care**

Weekend Weekday

* Total number audited: 30
* Documentation on PENS: 57%
* Documentation of fluid status: 43%
* Weight documentation: 63%
* Fluid balance complete:

- Yes 70% Partial 20%

* U&E checked: 90%
* Documentation of type of fluid prescribed: 23%
* Indication for fluid prescribed: 100%
* Volume of fluid prescribed recorded: 100%
* Duration of fluid prescribed recorded: 93%
* Cases where i.v. potassium was given: 20%
* Appropriate i.v. fluid prescribed

- Maintenance: 61%

- Replacement: 69%

- Resuscitation: 80%

* Total number audited: 24
* Documentation on PENS: 58%
* Documentation of fluid status: 46%
* Weight documentation: 79%
* Fluid balance complete:

- Yes 79% Partial 17%

* U&E checked: 92%
* Documentation of type of fluid prescribed: 25%
* Indication for fluid prescribed: 100%
* Volume of fluid prescribed recorded: 100%
* Duration of fluid prescribed recorded: 85%
* Cases where i.v. potassium was given: 50%
* Appropriate i.v. fluid prescribed

- Maintenance: 76%

- Replacement: 88%

- Resuscitation: N/a

Inappropriate Maintenance i.v. fluids prescribed

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Division** | **Ward** | **Specialty** | **Date** | **Fluid type** | **Volume** | **Duration** |
| Scheduled Care | 2X ESAU | Unplanned Surgical | Weekday | Hartmann | 3l | Over 6hr and 8hr |
| Scheduled Care | 5b | General Surgery | Weekend | 4%Dex/0.18% saline | 2l | 2x 1l over 8hr each |
| Normal saline | 1l | 8hr |
| Scheduled Care | 5X | Gastro & Hepatology | Weekday | Normal saline | 2l | Not documented |
| Scheduled Care | 8x | General Surgery | Weekday | Hartmann | 1l | 10hr |
| Scheduled Care | 8X | General Surgery | Weekday | 4%Dex/0.18% saline | 2l | 1l over 8hr, 1l over 8hr |
| Scheduled Care | 8X | General Surgery | Weekend | 4%Dex/0.18% saline | 2l | 2 x 1l over 8hr each |
| Scheduled Care | 8X | General Surgery | Weekend | 4%Dex/0.18% saline | 1l | 12hr |
| Scheduled Care | 8X | General Surgery | Weekend | Hartmann | 1l | 6hr |
| Scheduled Care | 8X | General Surgery | Weekday | 4%Dex/0.18% saline | 2l | 1l over 6 hr with KCL and 1l over 10hr |
| Scheduled Care | 8X | General Surgery | Weekday | 4%Dex/0.18% saline | 1l | 8hr |
| Scheduled Care | 9Y | Breast Unit | Weekday | Normal saline | 2l | 1l over 8hr / 1l over 12hr |
| Unscheduled Care | 2B | Clinical Gerontology | Weekend | Hartmann | 1l | over 12hr |
| Unscheduled Care | 6X | Respiratory | Weekday | Hartmann | 1l | over 10hr |
| Unscheduled Care | 6X | Respiratory | Weekday | Hartmann | 2l | 2X 1l over 10hr |
| Unscheduled Care | 6X | Respiratory | Weekend | 5% Dextrose | 1l | 10hr |
| Hartmann | 1l | 10hr |
| Unscheduled Care | 7A | Diabetes & Endocrin | Weekday | Normal saline | 1l | 8hr |
| Unscheduled Care | 7A | Diabetes & Endocrin | Weekday | Normal saline | 3l | 1l over 8hr/1l over 10hr/2x 500ml over 10hr |
| Unscheduled Care | 7A | Diabetes & Endocrin | Weekend | Normal saline | 3l | 4hr then 2x 8hr |
| Unscheduled Care | 7A | Diabetes & Endocrin | Weekend | Normal saline | 1l | 12hr |
| Unscheduled Care | 7B | Diabetes & Endocrin | Weekday | Normal saline | 2l | 2x 1l over 8hr |
| Unscheduled Care | 7B | Diabetes & Endocrin | Weekend | 4%Dex/0.18% saline | 1l | 6hr |
| Unscheduled Care | AMU | Acute Medicine | Weekday | Normal saline | 2l | 1l over 12hr, 1l over 12hr |
| Unscheduled Care | AMU | Acute Medicine | Weekend | Normal saline | 1l | 12hr |
| Unscheduled Care | AMU | Acute Medicine | Weekend | Normal saline | 2l | 1l 4-6hr, 1l 10hr |
| Unscheduled Care | AMU | Acute Medicine | Weekend | Hartmann | 1l | 10hr |
| Unscheduled Care | AMU | Acute Medicine | Weekend | Normal saline | 1l | 8hr |
| Unscheduled Care | AMU | Acute Medicine | Weekend | 5% Dextrose | 1l | 8hr |

Inappropriate Replacement i.v. fluids prescribed

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Division** | **Ward** | **Specialty** | **Date** | **Fluid type** | **Volume** | **Duration** |
| Unscheduled Care | 3Y | Infectious Diseases | Weekend | Hartmann | 1l | 8hr |
| Unscheduled Care | 7A | Diabetes & Endocrin | Weekend | Normal saline | 1l | 12hr |
| Unscheduled Care | 7A | Diabetes & Endocrin | Weekday | Normal saline | 3l | 1l over 8hr/1l over 10hr/2x 500ml over 10hr |
| Unscheduled Care | 7A | Diabetes & Endocrin | Weekday | 4%Dex/0.18% saline | 1l | 12hr |
| Unscheduled Care | 6X | Respiratory | Weekend | 4%Dex/0.18% saline | 1l | 8hr |
| Hartmann | 1l | 8hr |
| Scheduled Care | 5B | General Surgery | Weekday | Hartmann | 1l | 8hr |
| Scheduled Care | 5A | General Surgery | Weekend | 4%Dex/0.18% saline | 2l | 2x 1l over 8hr |
| Scheduled Care | 5Y | Gastro & Hepatology | Weekday | 4%Dex/0.18% saline | 2l | Not documented |
| Scheduled Care | 8A | Vascular Surgery | Weekday | 4%Dex/0.18% saline | 2l | 2x 1l over 8hr |
| Unscheduled Care | AMU | Acute Medicine | Weekday | Hartmann | 1l | 8hr |
| Unscheduled Care | AMU | Acute Medicine | Weekend | Normal saline | 1l | 8hr |
| Unscheduled Care | AMU | Acute Medicine | Weekend | 5% Dextrose | 1l | 8hr |
| Unscheduled Care | AMU |  | Weekday | 4%Dex/0.18% saline | 2l | 1l over 4hr, 1l over 10hr |
| Acute Medicine | Hartmann | 1l | 10hr |
|  | Normal saline | 1l | 10hr |
| Unscheduled Care | AMU |  | Weekday | 4%Dex/0.18% saline | 1l | 6hr |
| Acute Medicine | 5% Dextrose | 1l | 8hr |
|  | Hartmann | 1l | 8hr |
| Scheduled Care | 8X ACRU | General Surgery | Weekday | 4%Dex/0.18% saline | 1l | 8hr |

Inappropriate Resuscitation i.v. fluids prescribed

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Division** | **Ward** | **Specialty** | **Date** | **Fluid type** | **Volume** | **Duration** |
| Unscheduled Care | AMU | Acute Medicine | Weekend | Normal saline | 1l | 2hr |