

New Fluid Balance Documentation to improve patient outcomes in the acute setting.

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Background

- **Clinical measurements of daily body weight and fluid balance are essential** to inform treatment decisions, **to manage fluid overload** in patients with **heart failure**.^{1,2,3}
- Audits revealed that **this data was not being accurately recorded** by nursing staff on acute inpatient wards.
- **Five different** ‘unratified’ paper-based tools were in use, (see figure¹ for the most used version).
- **Source data forms were discarded** and not archived in patients’ medical records.

Aims

- **New standardised fluid balance documentation**, to meet medical, nursing and organisational requirements, will be **developed and implemented**.
- **All patients** requiring accurate assessment of their fluid status will have their **daily weights and fluid balance recorded accurately and reliably**.

Methods

- In 2020, a **clinical audit** of current daily weight recording practices was conducted, via a convenience sample of 93 patients’ records. The results confirmed that **daily weights and fluid balances** for fluid overloaded patients are **poorly documented**.
- A **Fluid Balance Working Group**, led by a Cardiac Nurse Practitioner was formed. Following **extensive consultation and collaboration with end-users**, the **new forms** (see figures 2,3), and a Clinical Practice Guideline **were released**
- Due to COVID-19 outbreaks, a **comprehensive education and marketing program** was undertaken via electronic media; email, online meetings and PowerPoint recordings.

Results

- An initial audit revealed **improved documentation** with the new forms.
- Results were negatively impacted by COVID-19 infection control measures.
- Extensive collaboration and **co-design by users led to improvements** which **meet the needs of all wards**: sufficient generic input and output columns; increased rows on both sides of the form to cater for frequent measures; shading, bolding and larger fields to improve readability and ease of use.

Conclusions

- Despite ongoing education and promotion fluid balance and daily weight recording remains sub-optimal.
- **Fluid balance documentation is more than just the paperwork**. Now that we have appropriate tools to capture the data, there is a need to focus on other actions, such as bedside daily weight signage.
- **Successful user engagement has resulted in high satisfaction** with the new forms.

References

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2. Al-Refaie, N. et al.(2021). Daily Weight and Fluid Balance Assessment in Patients Admitted with Acute Heart Failure. Retrieved July 01, 2023 from https://heart.bmj.com/content/heartjnl/107/Suppl_1/A113.full.pdf
3. Masip, J. et Al. (2021). Acute Heart Failure in the 2021 ESC Heart Failure Guidelines; a scientific statement from the Association for Acute Cardiovascular Care (ACVC) of the European Society of Cardiology. *Eur Heart J Cardiovasc Care*, 2022 Feb; 11(2): 173-185.:

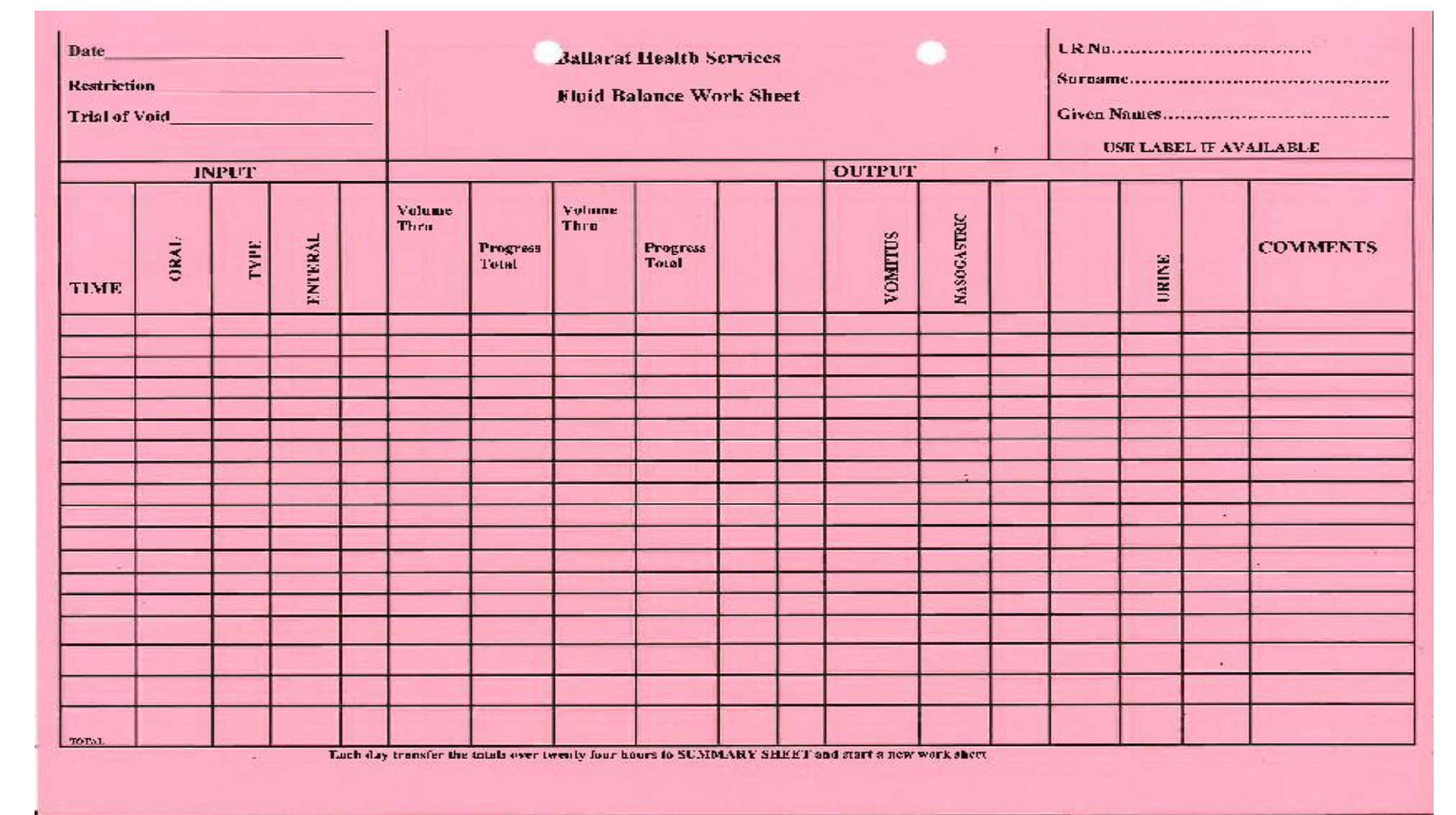


Figure 1: Original Fluid Balance Chart

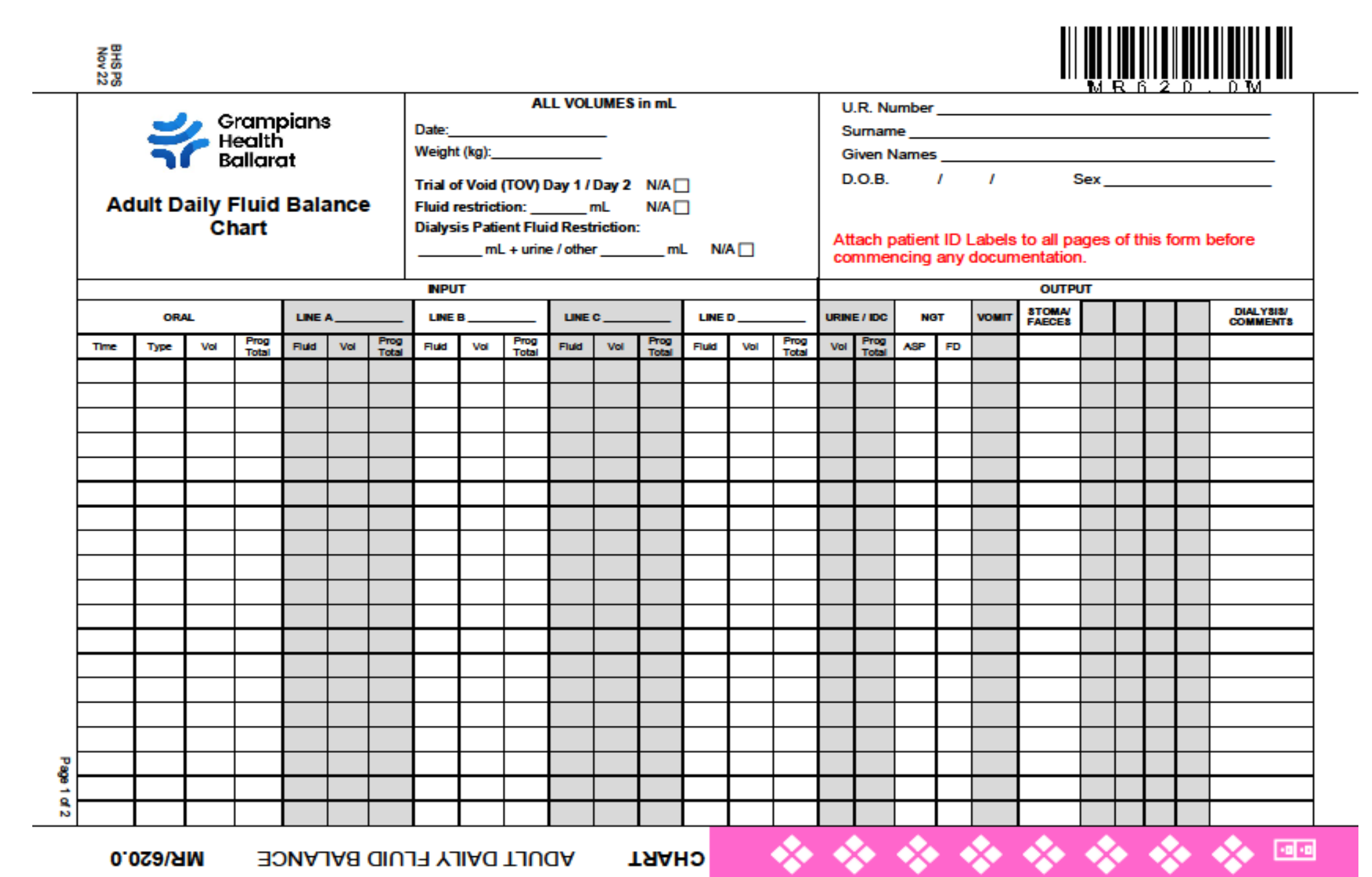


Figure 2: Updated Adult Daily Fluid Balance Chart

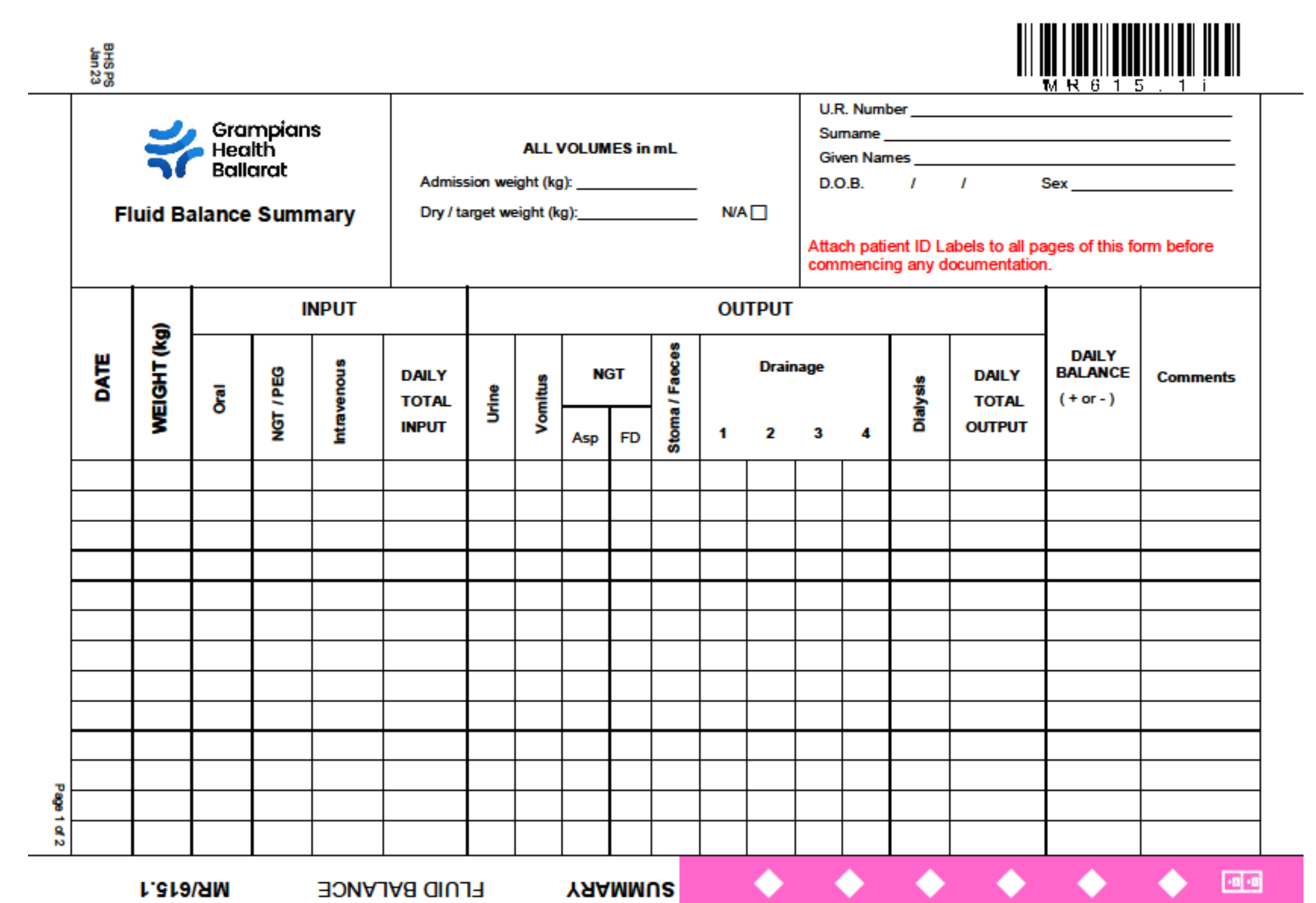


Figure 3. Updated Fluid Balance Summary Chart

