

## Greater Glasgow and Clyde NHS Board

### Board Meeting

December 2014

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Medical Director

### Scottish Patient Safety Programme Update

#### 1. Background

The Scottish Patient Safety Programme (SPSP) is one of the family of national improvement programmes, developed over recent years in response to the national Healthcare Quality Strategy. These programmes draw on improvement methods advocated by the Institute for Healthcare Improvement. SPSP now contains a number of distinctly identified programmes as follows:

- Acute Adult Care
- Primary Care
- Mental Health
- MCQIC (incorporating Paediatrics, Maternal Care & Neonates)

The Adult Acute Care Programme includes the national set of major improvement ambitions for SPSP described as the Point of Care Priorities. This set is deemed safety critical for patients in acute care but known to require further rigorous testing, spread and reliable implementation using the quality improvement methodology familiar to those involved with the safety programme.

The Point of Care priorities are listed as follows:

- Deteriorating patients
- Venous thromboembolism (VTE)
- Sepsis
- Heart failure
- Safer medicines
- Pressure ulcers
- Surgical site infections
- Catheter associated urinary tract infections (CAUTI)
- Falls with harm

This report provides a more detailed and specific update on two of the Points of Care Priorities, Medicines Reconciliation (the major part of safer medicines) and Venous Thromboembolism (VTE)

#### A1. Update on the SPSP Medicines Reconciliation Workstream

The purpose of the section is to update members of the NHS Board on progress of the Medicines Reconciliation workstream within the Scottish Acute Adult Patient Safety Programme. Although there is complementary improvement work underway within Primary Care and Mental Health programmes here we are specifically focussed on acute care.

## **A2. Goals & Measures of the SPSP Medicines Reconciliation Workstream**

Medicines reconciliation is the process of ensuring that patients are prescribed the correct medicines, in the correct doses appropriate to their current clinical presentation and that avoidable harm from medicines is reduced. Accurate, timely medicines reconciliation on admission to, and discharge from, hospital is an integral part of clinical care.

### **2.1 Medicines Reconciliation on Admission to Hospital**

#### **Goals**

- 95% compliance with medicines reconciliation process within 24hrs of admission
- 95% of patients have an accurate in-patient prescription chart within 24hrs of admission

#### **Measures**

- Percentage of Patients with Medicines Reconciliation Form completed within 24hrs of admission
- Percentage of Patients with a complete and accurate in-patient prescription chart within 24hrs of admission

### **2.2 Medicines Reconciliation on Discharge from Hospital**

#### **Goals**

- 95% compliance with medicines reconciliation process at discharge
- 95% of patients have complete and accurate medicines information in the Immediate Discharge Letter, including reasons for any changes.

#### **Measures**

- Percentage of patients complying with each element of the medicines reconciliation bundle at discharge
- Percentage of patients with complete and accurate medicines information in the Immediate Discharge Letter, including reasons for any changes

## **A3. Summary of current position**

### **3.1 Medicines Reconciliation on Admission to Hospital**

The medicines reconciliation process starts in clinical areas where patients are directly admitted to hospital, so this has been the focus of the programme to date. Target wards have been identified across all acute directorates. As part of the spread plan the directorates have identified sets of priority wards, usually with larger volumes of patient admissions, These wards have been supported by the programme manager and clinical pharmacy to use the model for improvement to test and modify their medicines reconciliation process.

### **3.2 Medicines Reconciliation at Discharge from Hospital**

The ability to perform medicines reconciliation effectively at discharge relies on it being done well on admission. The programme is therefore focused on improving medicines reconciliation on admission before formalising plans to target discharge. However, in preparation for this work Department Of Medicine for the Elderly wards at Glasgow Royal Infirmary have been doing some testing and measuring in this area.

## **A4. Results**

## 4.1 Medicines Reconciliation on Admission to Hospital

### Team Progress

Bundle	Number of teams			
	Target Teams*	Active Teams**	Submitting Data	Reliability achieved***
Medicines Reconciliation	124	79	66	21

\*Target teams figure is the total number of Acute clinical teams this work is applicable to.

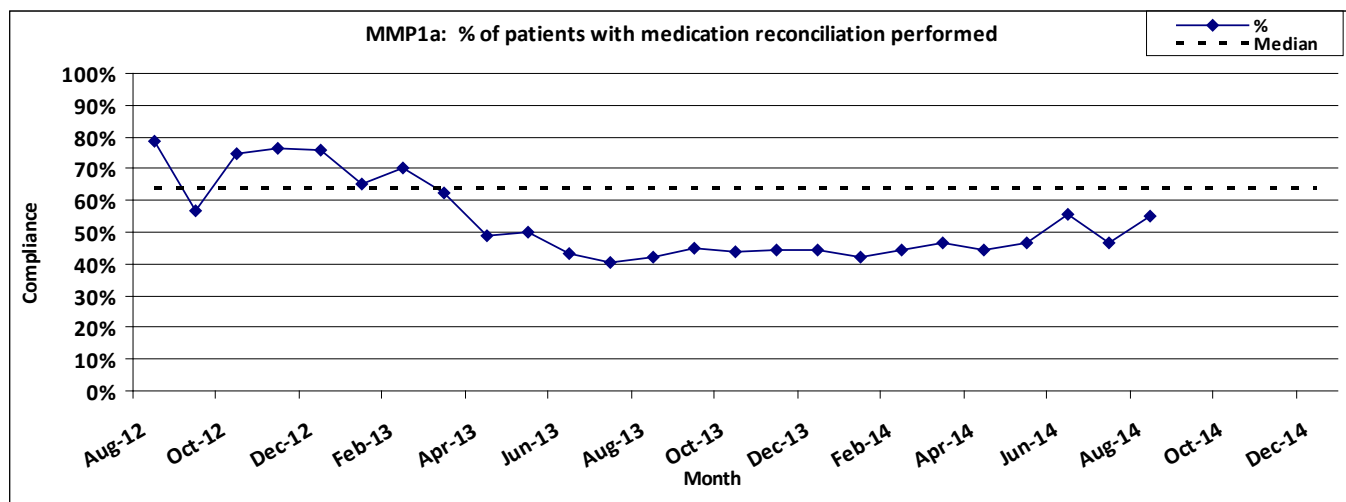
\*\* A team is considered active once an initial meeting has taken place in which they agree to take part in the Programme.

\*\*\* A team is considered to have achieved reliability when it demonstrates 6 consecutive data points with a median of 95%.

Following on from the development of a reliable clinical process in the initial pilot teams the spread plan is focussed on a phased approach. Inactive teams are not disengaged but will be supported in a future phase.

### Monthly Measurement Compliance

**Fig 1. Percentage of patients with a medicines reconciliation form completed within 24hrs of admission**



The chart shows **aggregate data from 66 teams** and does not differentiate between wards admitting large number of patients and those with much smaller numbers. The fall in compliance observed from Feb '13 onwards reflects the inclusion of new teams as the workstream spread from ECMS to include S&A & RSD.

#### A5. Key progress points

20 of 24 target teams in ECMS have demonstrated reliability. At the last review of programme progress in the Acute Services Division specific improvements were also noted in cardiology, neurosurgery & renal services and a few surgical wards e.g. orthopaedic trauma at GRI.

#### A6. Challenges

- There are many examples of junior doctors maintaining good practice in medicines reconciliation as they move between specialities. However we recognise that with the rotation of junior staff through many clinical areas the supervision by seniors is seen as an important reinforcement. Clinical supervision of junior doctor's compliance with the medicines reconciliation process is more challenging in some areas, notably surgical wards, where there is a different model of consultant led ward rounds than in medical settings.
- Maintaining and building on improvements when junior medical staff are regularly changing and exposed to varying practice across the West of Scotland.
- Medicines reconciliation takes time to complete and remains a complicated work flow whilst we use both electronic and paper based recording systems. The Meds Rec eForm reduces transcription, but rate of uptake is impacted by continued use of paper forms in medical admission documents

#### **A7. Further development points**

The measurement strategy has been reviewed in response to SGHD CMO(2013)18) and a change is required in the way we assess completion of the medicines reconciliation form, which is likely to have an impact upon current completion levels. Confirmation of the use of a minimum of two different sources of information is now included as a part of the measure.

The Medicines reconciliation eForm electronically transfers medicines information directly from the Emergency care Summary (ECS), reducing the need for the prescribing doctor to transcribe the drug list into the Medicines Reconciliation form. Use in the last year has increased by 50% but the continued availability of the paper form in pre-printed medical admission documents is seen as having a limiting impact on greater uptake. Removal of paper forms is being pursued but this sits within a broader review of electronic record keeping linked to the electronic patient record.

Using the eForm results in an electronic list of reconciled medicines and opens up the possibility of pulling this information into an electronic prescribing system and then into the IDL, further reducing the need for clinicians to write this out. In the long term implementation of a hospital wide electronic prescribing system is an answer but it is a major undertaking and a business case has still to be developed and agreed. However, a technical solution which transfers an electronically reconciled list of medicines created on admission into the IDL may be deliverable in the shorter term. This would reduce transcription when writing the IDL and provide a further incentive for prescribers to complete medicines reconciliation when patients are admitted to hospital. Exploratory work is underway with HI&T and support for investigating this development is being provided from senior leaders in Acute Services Division.

#### **B. Update on the SPSP Venous Thromboembolism (VTE) Workstream**

The purpose of the section is to update members of the NHS Board on progress in implementing the VTE prevention workstream of the Scottish Patient Safety Programme.

#### **B2. Why is this important?**

##### **2.1 The risk of Venous Thromboembolism (VTE) in Hospitalised Patients:**

Historically the risk of VTE and the benefit of prevention has been well recognised and a range of preventative measures have been instituted in healthcare, for instance there is an 8-fold increased risk in hospitalised medical patients compared to the general population. However, there is variation in the conduct of formalised documented VTE risk assessment, which contributes to inappropriately prescribed thromboprophylaxis either through omission in high risk patients or unnecessary administration in those at low risk.

It is difficult to quantify the risk and benefit but it is estimated that in NHS GG&C

- The number of VTE diagnosed annually is around 1800
- The number of VTE diagnosed where there is risk from hospital care (i.e. Healthcare Associated VTE) is around 720 annually (40% is current understanding and extrapolated from a study in the GRI [2009-2010])
- Thromboprophylaxis reduces the rate of HA-VTE by up to 70%, therefore it is estimated that 504 HA-VTE in NHSGGC annually are potentially preventable

## 2.2 Risks of not assessing for thromboprophylaxis in hospitalised patients

- Patient risks (VTE/Death)
- Organisational risks (complaints, litigation)
- Risk of VTE recurrence is approximately 30% at 10 years
- Post thrombotic syndrome (PTS) occurs in up to 50% of patients
- Significant costs associated with the investigation of symptomatic patients
- Significant costs associated with the treatment of VTE (Resource burden [financial, personnel] to health service)

## B3. Aim & Measures SPSP VTE Prevention Collaborative

### 3.1 Aim

This area of work is looking at the assessment of patients and concurrent administration of interventions to prevent VTE in all patients being admitted for acute inpatient care. The current aim is that there will be a sustained improvement in delivery of venous thromboembolism risk assessment (at 95% +/- 5%) in 50% of applicable wards by December 2015.

### 3.2 Measures

Following confirmation of the SPSP 9 Points of Care, a new measurement strategy for VTE prevention was launched in April 2014. The main changes are a reduction in measures from 6 to 4, and an extension of the reassessment measure from 48 hours to 72 hours. The feedback received indicates that the changes have been welcomed by clinical communities.

- VTEP1: Percent of patients who had a documented VTE risk assessment for patient and admission related risks and contraindication within 24 hours of admission
- VTEP3: Percent of patients who had the correct pharmacological/mechanical thromboprophylaxis administered
- VTEP4: Percent of patients with documented reassessment of VTE risk as per local policy (documented reassessment every 72 hours)
- VTEP5: Percent of patients informed of risks and benefits of VTE prophylaxis

## B4 Summary of progress

### 4.1 Summary

- There are 35 teams currently active within the locally supported programme,
  - 12 teams from the initial cohort of pilot wards
  - 23 further teams identified specifically by directorates
- All teams have a defined sponsor (Associate Medical Director/ Director/ Head of Nursing) to provide organisational support
- There is a NHSGGC Guideline for VTE Prevention and a standardised VTE prevention risk assessment tool for the majority of specialties, which has been designed to make it as quick and easy to complete as possible and a patient information leaflet to support the reliable delivery of risk assessment for VTE prevention.

- The VTE prevention bundle is mainly focussed on assessment within the first 24 hours with the only exception being the need to reassess patient need every three days. The value in longer term admissions is being discussed as there is a perception of very limited patient benefit.

## **4.2 Further roll out VTE Prevention bundle**

The proposal is that the roll out plan will be taken forward in three phases

- Phase 1: May 14-August 14: recruit an additional 34 wards (total 66 wards)
- Phase 2: September 14-March 15: recruit an additional 34 wards (total 100 wards)
- Phase 3: April 15-December 15: spread to remaining 99 wards (total 199 wards)

Experience from other SPSP improvement collaboratives have indicated that there is an approx 18 months timeline for teams to get sustained improvement. However because of the underlying complexities of the clinical workflow we are not yet seeing this rate of progress with the teams working on the VTE workstream.

Although there is ongoing discussion with the Clinical Directorates to recruit additional teams, linked to supportive dialogue with the Clinical Leads in hospital sites, it is likely that the preparation and transfer of clinical services into the new southern general campus will be a major limiting factor to our plan.

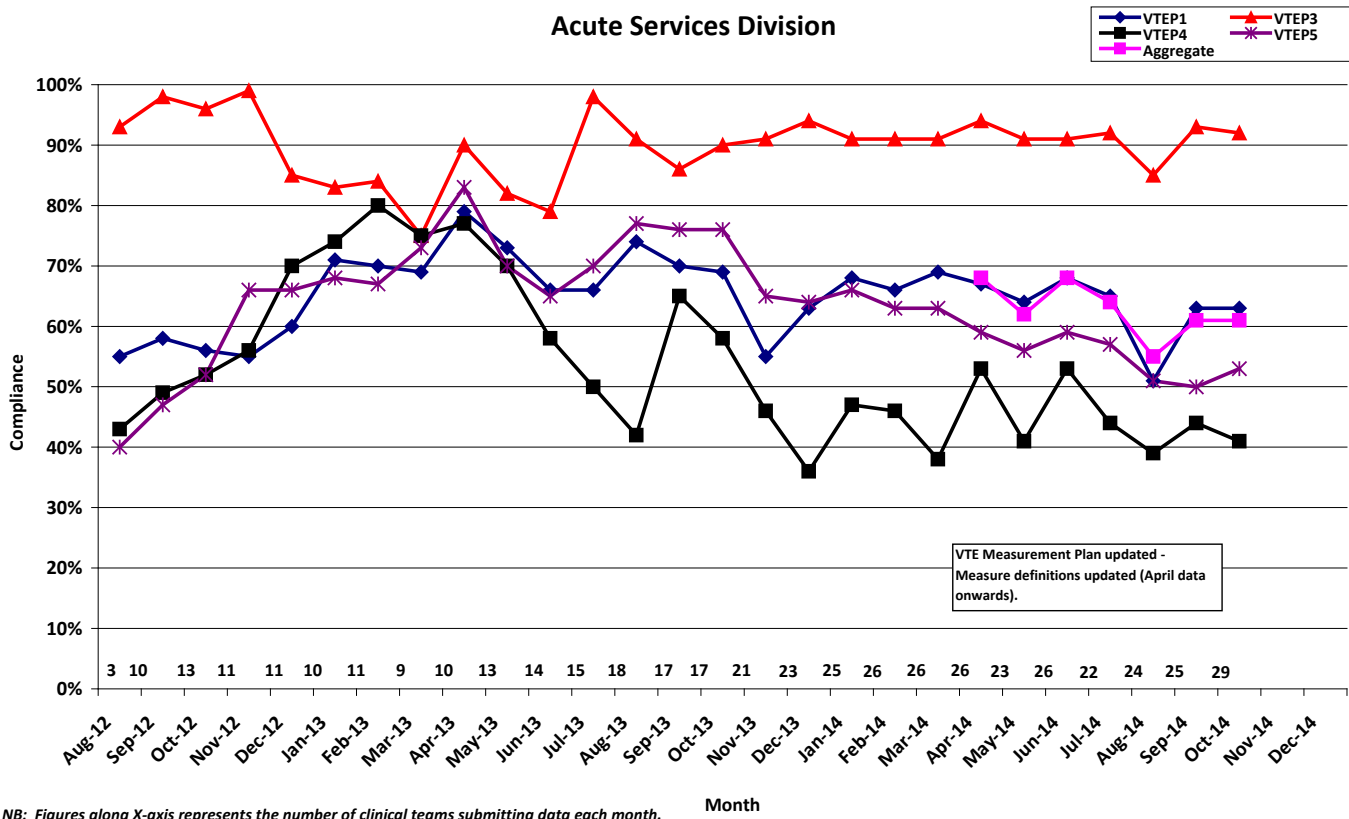
## **B5. Results**

### **5.1 Results**

Four wards have now reach the goal of demonstrating sustained reliability across all four measures:

- L8 Ortho Western Infirmary (S&A)
- Ward 45 (Plastics) Glasgow Royal Infirmary (REG)
- AMU (Ward 2) Royal Alexandra Hospital (ECMS)
- MAU Royal Alexandra Hospital (ECMS)

### **5.2 Acute Services Division Overview** (with number of teams submitting data each month)



In summary for data submission (29 teams submitted data in October 2014)

- VTEP1: (63%) Percent of patients who had a documented VTE risk assessment for patient and admission related risks and contraindication within 24 hours of admission
- VTEP3: (92%) Percent of patients who had the correct pharmacological/mechanical thromboprophylaxis administered (*this is taken from those patients who had a risk assessment completed within 24 hours*)
- VTEP4: (41%) Percent of patients with documented reassessment of VTE risk as per local policy (*documented reassessment every 72 hours*)
- VTEP5: (53%) Percent of patients informed of risks and benefits of VTE prophylaxis

Overall

- VTEP1 – 1 reliable ward, 7 with sustained reliability
- VTEP3 – 2 reliable wards, 17 with sustained reliability
- VTEP4 – 2 reliable wards, 4 with sustained reliability
- VTEP5 – 1 reliable ward, 10 with sustained reliability

**B6. Key progress points**

It is well recognised that improving clinical processes can be regarded as more credible where there is an associated outcome measure. For instance the improvement work in critical care was further enhanced

when clinicians could observe reductions in infection rates. As with other Boards, NHSGGC is challenged by the lack of a national outcome measure for VTE. We are trying to resolve this locally and a new process has been implemented, whereby radiologists and sonographers flag all new pulmonary emboli and deep venous thrombosis on the Radiology System with a V flag. A monthly report is then provided, and the data stratified to count those patients who had a hospital admission within the preceding 90 days prior to diagnosis. This is in the early stages of implementation and the uptake of use of the V flag, and the usefulness of this measure will hopefully improve over time.

The national faculty, comprising clinical leads and HIS support staff, continue to highlight our progress as among the best in the country and that NHSGGC have had considerable success in engaging clinicians with VTE work.

## **B7. Key Challenges**

- Whilst engagement and participation has overall been good with the pilot teams, the progress towards reliability within these teams remains prolonged with the rate of testing a recognised limitation. Many members of the clinical teams are used to traditionally slower approaches to improvement so the idea of multiple tests of change run over days/weeks, instead of weeks and months, is challenging.
- The development, testing & implementation of a generic e-form for VTE risk assessment has not progressed as this has a dependency on the development of the generic eform for medical assessment clerk in, which will be progressed as part of the wider EPR programme for the Acute Services Division.
- Clinical teams continue to report that their capacity to engage with the VTE Prevention collaborative is limited by the need to also support other programmes of improvement work.



**Appendix One**  
**Scottish Patient Safety Programme: Glossary of Terms**

<b>SPSP</b>	Scottish Patient Safety Programme
<b>SPSP-MH</b>	Scottish Patient Safety Programme – Mental Health
<b>SPSP – PC</b>	Scottish Patient Safety Programme – Primary Care
<b>SPSPP</b>	Scottish Patient Safety Paediatric Programme
<b>CVC</b>	Central Venous Catheter
<b>CAUTI</b>	Catheter Associated Urinary Tract Infection
<b>DMARDs</b>	Disease Modifying Anti Rheumatic Drugs
<b>EWS</b>	Early Warning Scoring
<b>HAI</b>	Healthcare Associated Infection
<b>HDU</b>	High Dependency Unit
<b>HIS</b>	Healthcare Improvement Scotland
<b>HSMR</b>	Hospital Standardised Mortality Ratio
<b>IHI</b>	Institute for Healthcare Improvement
<b>ITU</b>	Intensive Care Unit
<b>ISD</b>	Information Services Division
<b>LES</b>	Local Enhanced Service
<b>LVSD</b>	Left Ventricular Systolic Dysfunction (heart failure)
<b>MCQIC</b>	Maternal Quality Care Improvement Collaborative
<b>MDT</b>	Multi Disciplinary Team
<b>NEWS</b>	National Early Warning Scoring
<b>PDSA</b>	Plan, Do, Study, Act (small scale, rapid, reflective tests used to try out ideas for improvement)
<b>PVC</b>	Peripheral Venous Cannula
<b>QOF</b>	Quality Outcomes Framework

<b>SBAR</b>	Situation, Background, Assessment, Recommendation (a structured method for communicating critical information that requires immediate attention and action; can also be used effectively to enhance handovers between shifts or between staff in the same or different clinical areas.
<b>SMR</b>	Standardised Mortality Ratio
<b>SSI</b>	Surgical Site Infection
<b>SUM</b>	Safer Use of Medicines
<b>Surgical Briefing</b>	A pre-operative list briefing designed to ensure entire team understand expectations for the list and each procedure.
<b>Surgical Pause</b>	A pre-operative pause as an opportunity to cover surgical checklist and act as final reminder of items that must be completed prior to commencement of the operation.
<b>Trigger Tool</b>	A case note audit process designed to find examples where the care plan has not progressed as expected
<b>VAP</b>	Ventilator Associated Pneumonia
<b>VTE</b>	Venous Thromboembolism