

STUDY OF COMPLIANCE RATE OF VENOUS THROMBOEMBOLISM (VTE) PROPHYLAXIS FORM IN IN- PATIENT DEPARTMENTS

Dr. Sonam K Wangzen

Mentor Name: Dr. Vinod Kumar SV

What is VTE?

- ▶ Deep Vein Thrombosis and Pulmonary Embolism (DVT/PE) are often underdiagnosed and serious, but preventable medical conditions.
- ▶ Deep vein thrombosis (DVT) is a medical condition that occurs when a blood clot forms in a deep vein. These clots usually develop in the lower leg, thigh, or pelvis, but they can also occur in the arm.
- ▶ It is important to know about DVT because it can happen to anybody and can cause serious illness, disability, and in some cases, death. The good news is that DVT is preventable and treatable if discovered early.

Why is VTE prophylaxis important?

- Appropriate use of prophylaxis against deep vein thrombosis (DVT) in hospital inpatients is important for reducing the risk of fatal and non-fatal pulmonary embolism and post-thrombotic complications

Research Question

- ▶ VTE prophylaxis form compliance in the respective departments from February 22nd 2023- May 22nd 2023

1. Private Room
2. Semi Private
3. General Ward
4. ICU
5. HDU
6. CCU
7. MICU
8. ANC ward
9. CTVS ward

Objective

1. To monitor the use of VTE prophylaxis form in the given respective departments from Feb. 22 to May 22'
2. To observe the VTE prophylaxis compliance through the use of VTE questionnaire
3. To prove that the compliance rate of VTE prophylaxis form is significantly lower than the compliance rate of other forms such as Pain assessment and Fall assessment forms.

Methodology

- **RESEARCH OBJECTIVE:** To find out the rate of compliance in VTE prophylaxis
- **STUDY DESIGN:** Cross sectional study design
- The study design used in this study will be cross sectional study design
- **SETTING:** Narayana Multi Speciality Hospital, Jaipur
- **STUDY POPULATION:**
 - Inclusion criteria: All patients being admitted in MICU, CCU, SICU, HDU, General Ward, ANC ward, CTVS ward, Private ward, Semi Private Ward and PICU from Feb 22nd to May 22nd 2023
 - Exclusion criteria: OPD, Post OP ward, NICU.

- Study tools: The Study tool used in this study is a detailed questionnaire which includes questions such as
 - a. Name of Speciality
 - b. Area of audit
 - c. MRN (Medical Record Number) of the samples audited
 - d. Verify whether the prophylaxis used is current and updated
 - e. Whether VTE risk assessment is done
 - f. If so, then the level of risk identified
 - g. Prophylaxis advised as per the level of risk
 - h. Contraindications for prophylaxis mentioned, where ever applicable
 - i. Whether prophylaxis administered or not
 - j. Re assessment of VTE risk performed

- DURATION OF STUDY: February 22nd - May 22nd 2023
- SAMPLE SIZE: 615(all patients admitted from Feb 22nd to May 22nd) excluding the dates March 19-April 4th due to closure of hospital in lieu of the protest against the Right to Health bill.
- SAMPLING TECHNIQUE: inclusion of all participants being admitted to the concerned wards in the given time period
- DATA COLLECTION PROCEDURE: IPD case files
- DATA ANALYSIS PLAN: Descriptive analysis through the collection of data obtained within a given time period
- ETHICAL CONSIDERATIONS: Consent from all the patients

Analysis

- The methodology used in this study will be the cross-sectional study design. The hypothesis in this study design is to prove that the compliance rate of VTE prophylaxis form is lower than the compliance rate of other preventive forms such as fall assessment and pain assessment forms. The key research questions in this study design are as follows
- Is the compliance rate of VTE prophylaxis form lower than the compliance rate of other forms in the IPD department?
- If so, is the compliance rate of VTE prophylaxis form low in every IPD departments?
- What are the barriers to having a low compliance rate of VTE prophylaxis form?
- Suggestions to improve the compliance rate of VTE prophylaxis form
- The study setting will be conducted in Narayana Multi Speciality Hospital, Jaipur. The study design is of descriptive in nature and the study population includes all patients admitted in the IPD departments (except for Neonatal ICU, Post Op wards) from February 22nd 2023 to May 22nd 2023. A total of 615 samples was collected for 12 weeks.

IPD WARD	TOTAL SAMPLES COLLECTED
General Ward	120
Cardiothoracic Vascular Surgery Ward (CTVS)	90
Private Ward	75
Semi Private Ward	80
Ante Natal Care Ward (ANC)	25
Paediatric ICU	6
Medicine ICU	75
Surgery ICU	44
Critical Care Unit (CCU)	40
High Dependency Unit (HDU)	60
Total	615

In the case files of the above 615 samples, the forms to be assessed was

1. VTE prophylaxis form
2. Pain Assessment form
3. Fall Assessment form

This study was a qualitative approach in which data was collected in the concerned IPD wards on a weekly basis for 12 weeks. It was a systematic approach with strict adherence to the hospital's guidelines and protocols so as to not to obstruct the hospitals daily activities while conducting this study. A descriptive analysis will be conducted to analyse the data collected and compared with the compliance rate of other forms in the IPD departments. Hence to prove the above-mentioned hypothesis, the compliance of Pain and Fall Assessment forms were compared against the compliance of VTE prophylaxis form.

Results

Given below shows the following tables and graphs of each form and their compliance rate in the given period from February 22nd to May 22nd 2023.

COMPLIANCE RATE (Feb 22nd 2023-May 22nd 2023)

WARD	VTE prophylaxis form
Private Ward	99%
Semi Private Ward	99%
General Ward	99%
CTVS ward	95%
ICU	98%
HDU	98%
CCU	99%
ANC ward	100%
General Paediatric Ward	100%

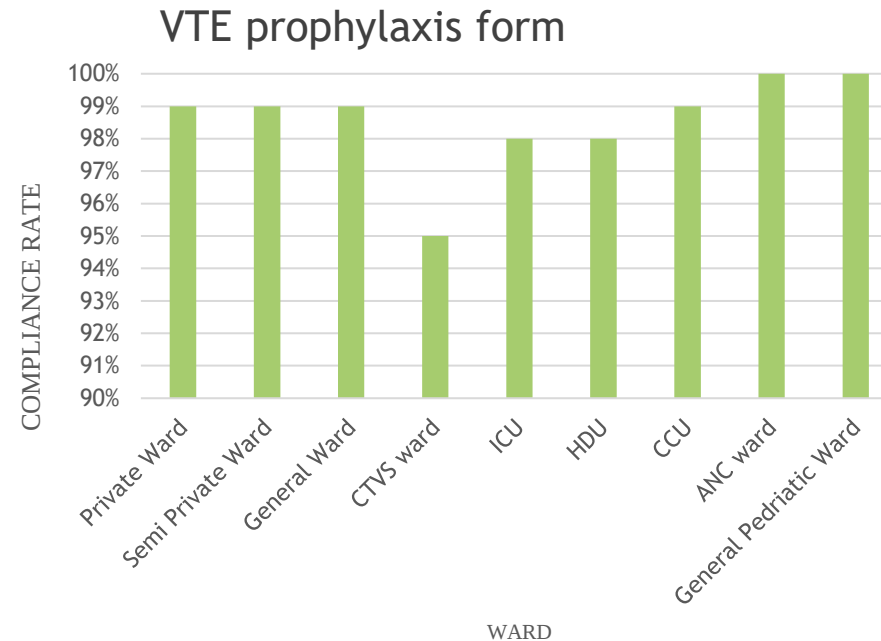


Table 3.1 shows the compliance rate of VTE prophylaxis form in the IPD departments where the lowest compliance rate of 95% was observed in the CTVS ward and the highest compliance rate was 100% in the General Ward and ANC ward.

Graph 3.1 depicts the graphical representation of VTE prophylaxis form compliance

WARD	Pain assessment form
Private Ward	100%
Semi Private Ward	100%
General Ward	100%
CTVS ward	100%
ICU	100%
HDU	100%
CCU	100%
ANC ward	100%
General Paediatric Ward	100%

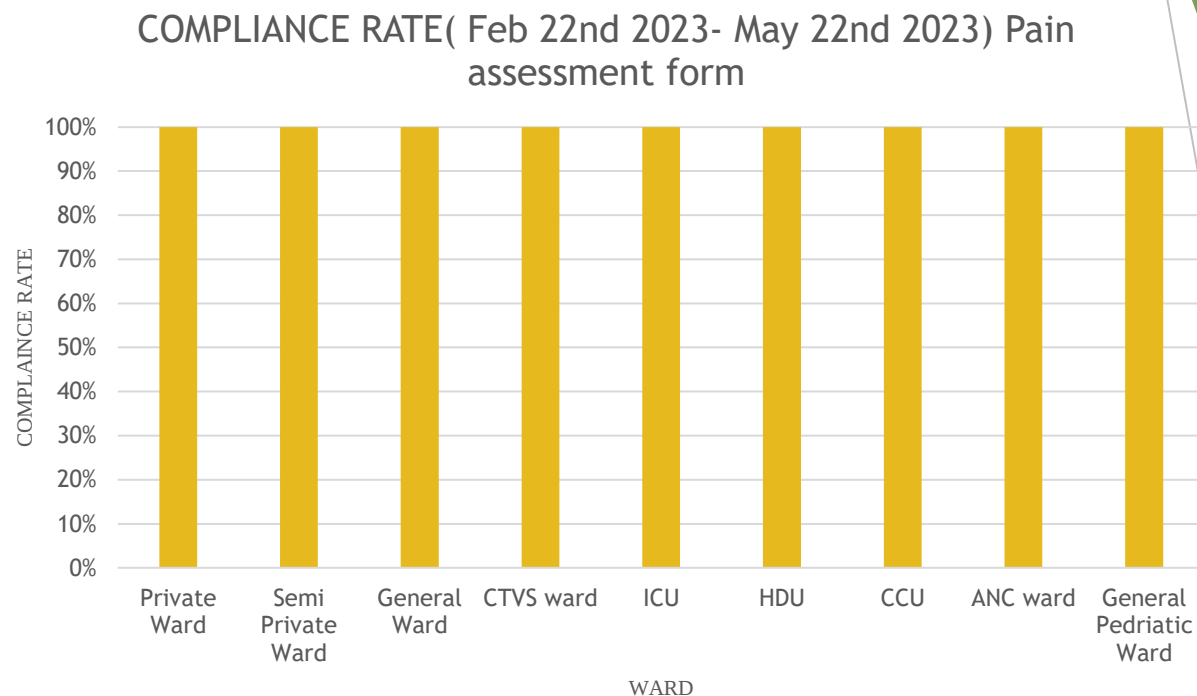


Table 3.2 and graph 3.2 depicts the compliance rate of 100% in the filling of the Pain Assessment form.

COMPLIANCE RATE (Feb 22nd 2023- May 22nd 2023)

WARD	Fall assessment form
Private Ward	100%
Semi Private Ward	100%
General Ward	100%
CTVS ward	100%
ICU	100%
HDU	100%
CCU	100%
ANC ward	100%
General Pedriatic Ward	100%

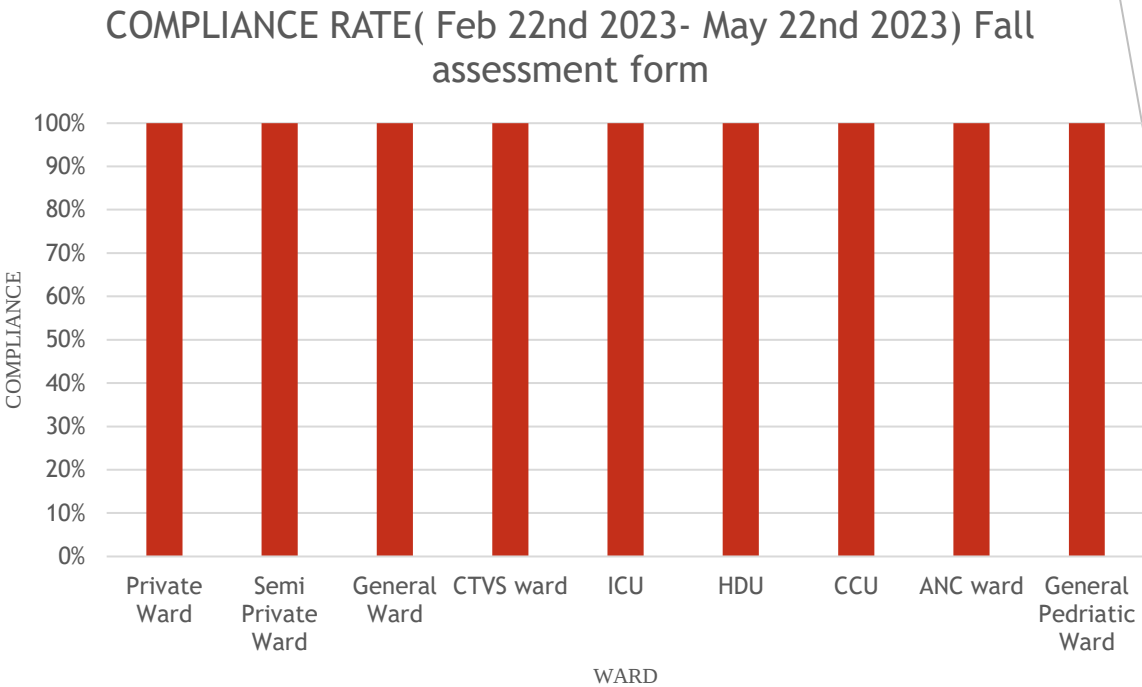


Table 3.3 and graph 3.3 depicts the compliance rate of 100% for Fall Assessment form.

COMPLIANCE RATE (Feb 22nd 2023- May 22nd 2023)

WARD	VTE prophylaxis form	Pain assessment form	Fall assessment form
Private Ward	99%	100%	100%
Semi Private Ward	99%	100%	100%
General Ward	99%	100%	100%
CTVS ward	95%	100%	100%
ICU	98%	100%	100%
HDU	98%	100%	100%
CCU	99%	100%	100%
ANC ward	100%	100%	100%
General Paediatric Ward	100%	100%	100%

COMPLIANCE RATE(Feb 22nd 2023- May 22nd 2023)

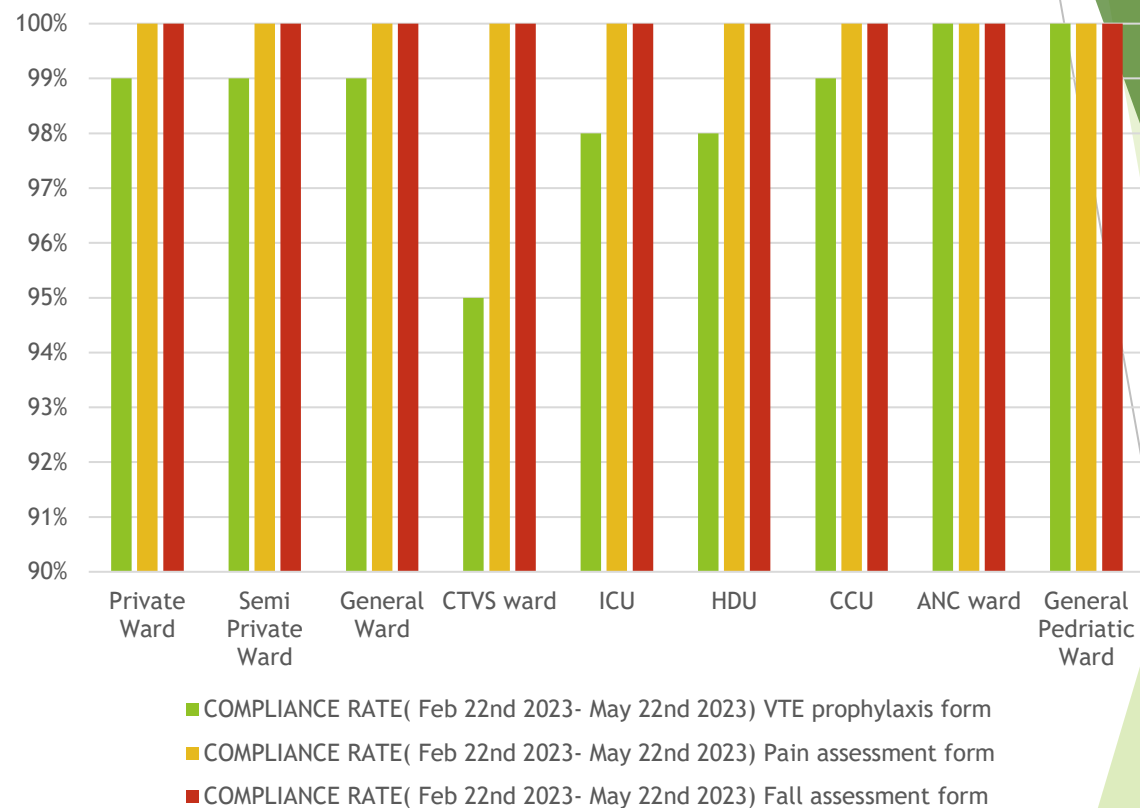


Table 3.4 and Graph 3.4 depicts the comparison of the compliance rate of all the three forms.

Interpretation

1. VTE prophylaxis compliance form: Most wards achieved a compliance rate of 99% or 100% for VTE prophylaxis form, indicating a high level of adherence by the Hospital protocol towards the prevention of Venous thromboembolism (VTE). However, a compliance rate of 95% was achieved in the CTVS ward indicating reasons for lower compliance rate prompting appropriate measures in addressing them
2. Pain Assessment compliance form: All wards demonstrated a compliance rate of 100% indicating proper evaluation and monitoring of pain levels during admission as per the hospital protocol
3. Fall Assessment compliance form: Similarly, a compliance rate of 100% was achieved for Fall assessment form indicating that proper and appropriate measures were taken to prevent falls among patients that are admitted.

Conclusion

- The compliance rates for VTE prophylaxis form, Pain assessment form and Fall assessment form, from February 22nd 2023 to May 22nd 2023 indicates proper and high adherence to the hospital protocols in the given hospital wards. Most wards have achieved a compliance rate of 99% - 100% in all the three forms proving the hospital's goal towards providing optimum patient safety and quality care.
- It can also be concluded that the compliance rate for VTE prophylaxis form is lower than the other two forms included in the study as shown in the compliance rate in CTVS ward being only 95% thus suggesting the need for improvement in this area.

THANK YOU