

THE CAPRINI SCORE

Mrunalini Ghangrekar, Tej Murudkar, Shivangi Ranjan, Roumika Patil, The GTF Group

ABSTRACT

Thrombosis is the # 1 preventative post-operative fatal condition. The Caprini Score (CS) is used as a risk assessment tool to determine whether to prescribe thromboprophylaxis, based on an assessment of age, surgery severity, bedrest, conditions, etc. Although the CS is the most effective of the few thromboprophylaxis assessments, it is not very accurate after 10 points. CS suggests an accurate course of action in determining whether thromboprophylaxis should be prescribed.

CALCULATION PARAMETERS OF CS

- The following parameters are considered in the calculation of the CS:
- Planned Surgery, Swollen Legs,
- Visible varicose veins, MI within 30 days, previous Infection, stroke in the last mo., plaster cast, gender, tube in blood vessel, fracture of hip, pelvis, or leg, spinal cord injuries, past major surgery, history of IBD, overweight: BMI > 25 or higher, CHF within the past month, existing lung disease, bedrest in the past month, age, cancer, history of DVT, history of positive blood test, multiple traumatic injuries.

WHY USE THE CAPRINI SCORE?

- The most widely validated VTE risk assessment model in surgical patients.
- Stratifies risk for VTE and provides validated recommendations for who should be discharged with continued prophylaxis (Figure 3).

SUMMARY AND CONCLUSIONS

- The CS is an assessment used to evaluate the risk of DVT and VTE in patients.
- The assessment is conducted by adding a certain number of points to every risk factor of the patient.
- The total number of points determines if the patient has a very low risk, or very high risk, including the levels of risk in between.
- The CS is mostly used in the post-operative period.

INTRODUCTION

Joseph A. Caprini, MD (Figure 1), is a senior clinician-educator at the Pritzker School of Medicine at the University of Chicago, and an inventor of the CS. The CS helps in evaluation of the risk of DVT and VTE. Examples of recent medical events that physicians look for are trauma, fractures, strokes, and pregnancy, which can add up to a total of 5 points to the total CS. The present and past history, body mass index (BMI), acute myocardial infarction, chronic obstructive pulmonary disease, inflammatory bowel disease, and other risk factors are also looked at.

WHAT DOES THE CS for DVT RISK MEAN?

- CS indicates odds of developing a DVT during major surgery or while being hospitalized for a serious illness.
- Airplane passengers who fly more than five hours may also be at risk for DVT.
- The patient with CS of 0-2 have a small risk of VTE. The risk increases with the increase of CS (Figure 2).

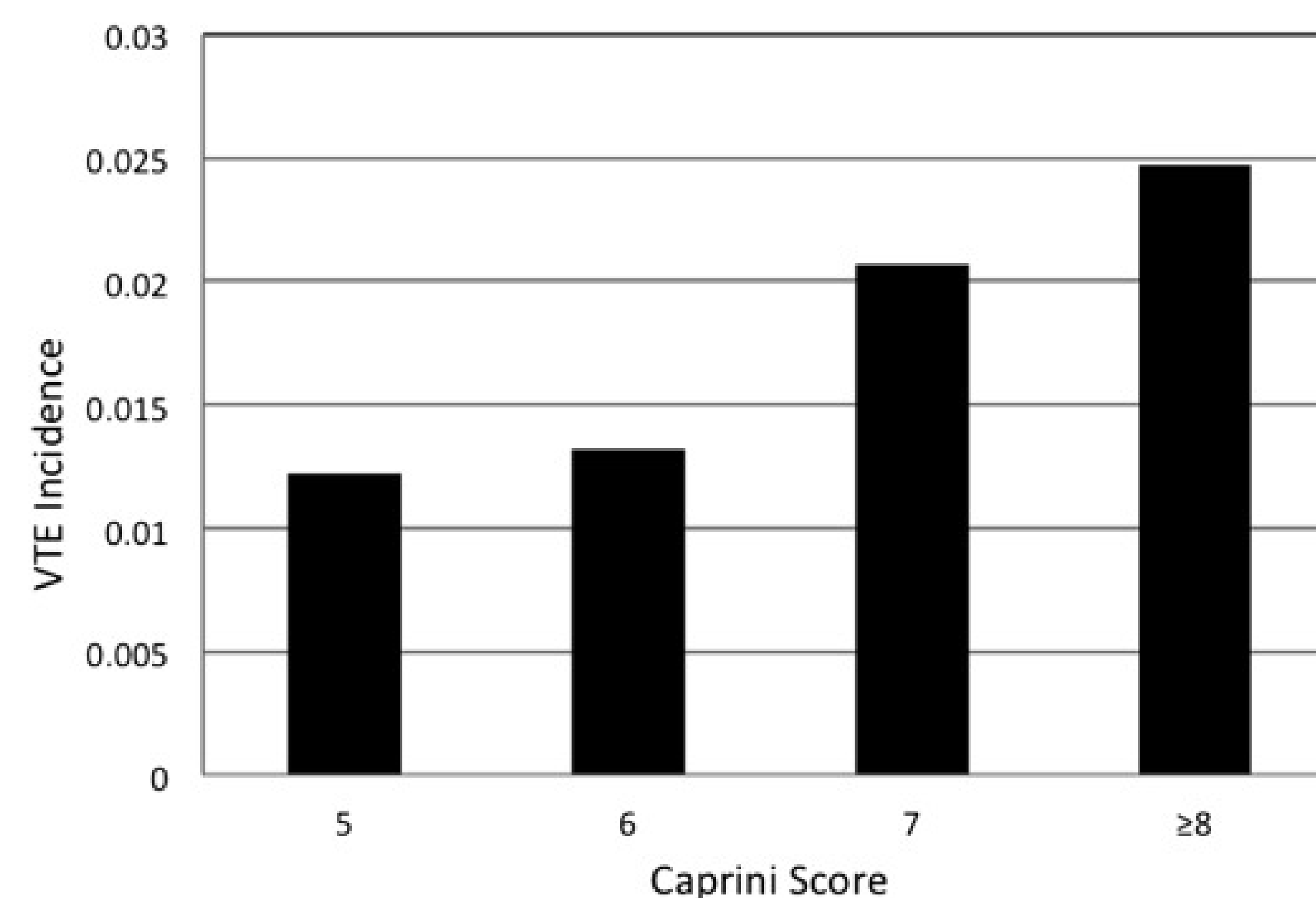


Figure 2: Risk of VTE rises as the SC goes up



Figure 3

ACKNOWLEDGEMENTS

- The authors want to thank Dr. Joseph Caprini for his constant encouragement to us.
- We would like to thank Dr. Atul Laddu who guided us in making this project and providing us the resources used to create a poster and learn about the CS.

ADVANTAGES OF CS

- Assesses risk of VTE/DVT
- Indicates the risk for people during surgery
- Is accessible to anyone
- Takes note of all possible risk factors (age, gender, etc.)
- Relatively easy to use
- Accurately assesses the risk when all information is correctly entered and is extremely thorough with its factors.

DISADVANTAGES OF CS

- May not be applicable to medical patients.
- Requires face-to-face physician/patient interaction to obtain historical factors.

REFERENCES

- Golemi, Iva; Adum, Juan Pablo Salazar; Tofur, Alfonso, et al: Venous thromboembolism prophylaxis using the Caprini score: Disease-a-Month, 65, 249-298, 2019
- Golemi I; Salazar Adum JP; Tafur A; Caprini J et al: Venous thromboembolism prophylaxis using the Caprini score: Dis Mon., 65: 249-298, 2019.
- Grant PJ; Greene, MT; Chopra, V et al: Assessing the Caprini Score for Risk Assessment of Venous Thromboembolism in Hospitalized Medical Patients: Am J Med., 129, 528-535, 2016.
- Zhou H; Hu Y; Li X et al: Assessment of the Risk of Venous Thromboembolism in Medical Inpatients using the Padua Prediction Score and Caprini Risk Assessment Model: J Atheroscler Thromb: 25, 1091-1104, 2018



Figure 1: Joseph Caprini, MD

