

PREVENTION AND TREATMENT OF VENOUS THROMBOEMBOLISM

International Consensus Statement 2013 Guidelines According to Scientific Evidence

Developed under the auspices of the:

Cardiovascular Disease Educational and Research Trust (UK)

European Venous Forum

North American Thrombosis Forum

International Union of Angiology and

Union Internationale du Phlebologie

Patients with Burns

Chapter 7

Risk of VTE in Patients with Burns

- **VTE risk ranges from mild to severe¹**
 - ▶ Incidence of DVT is between 6% and 27%²⁻⁵
 - ▶ Symptomatic VTE occurs in 0.2% to 7.0%^{3,6,7}
- **Risk is higher in patients >50 years of age and females¹**
- **Additional injuries and co-morbid diseases may require intensive care and a multidisciplinary approach to prevent VTE**

1. Barret JP and Dziewulski PG. Burns 2006; 32:1005-8.
2. Wibbenmeyer LA, et al. J Trauma 2003; 55:1162-7.
3. Wait M, et al. Ann Surg 1990; 211:499-503.
4. Wahl WL, et al. J Burn Care Rehabil 2002; 23:97-102.

5. Brischetto M, et al. Am J Respir Crit Care Med 1998; 157:A768.
6. Harrington DT, et al. J Trauma 2001; 50:495-9.
7. Gnoyski JM, et al. Arch Phys Med Rehabil 1994; 75:1045.

Incidence of DVT in the Absence of Prophylaxis

Diagnosed by surveillance with objective methods: Phlebography, FUT or DUS

Study	Patients (n)	DVT Incidence	95% CI
Wait et al, 1990 ¹	71	14	
Wahl et al, 2002 ²	30	7	
Wibbenmeyer et al, 2003 ³	148	9	
Total	249	30 (12%)	8.6% to 16%

1. Wait M, et al. Ann Surg 1990; 211:499-503.
2. Wahl WL, et al. J Burn Care Rehabil 2002; 23:97-102.
3. Wibbenmeyer LA, et al. J Trauma 2003; 55:1162-7.

VTE Prophylaxis in Patients with Burns

General Considerations

- **USA survey revealed most centers used VTE prophylaxis¹**
 - ▶ Combination of mechanical (IPC) and LDUH prophylaxis
- **Prophylaxis should be individually assessed because of lack of evidence**
 - ▶ Recommendations for patients with burns are extrapolated from patients with multiple injuries
- **LMWH is preferable when burns are associated with potential renal impairment**

VTE Prophylaxis Recommendations

Burns

- **LDUH or LMWH initiated as soon as possible**
 - ▶ Level of evidence: Low
- **Continue LDUH or LMWH as long as patient are at risk**
 - ▶ Level of evidence: Low
- **For patients at high risk of bleeding, mechanical prophylaxis with GEC and IPC is recommended if burns do not involve the lower limbs**
 - ▶ Level of evidence: Low
- **FIT is an alternative**
 - ▶ Level of evidence: Low