

## Bleeding from varicose veins:

advice in primary care and referral

### THE PREVALENCE AND IMPACT OF VARICOSE VEINS AND THEIR RISK OF BLEEDING

Fear of bleeding from varicose veins is common and bothers many patients, as varicose veins are so prevalent.<sup>1</sup> When bleeding has occurred, then the risk of further bleeds is high and urgent treatment is indicated for the underlying varicose veins. Despite the potential seriousness of this complication, and clear National Institute for Health and Care Excellence (NICE) guidance on varicose veins, there seems to be quite widespread uncertainty about who is at risk, and precisely what to do when and after bleeding has occurred.<sup>2,3</sup> There is surprisingly little in the literature about this condition.<sup>3,4</sup>

Bleeding from varicose veins can be fatal, because of frailty and incapacity, ignorance about what to do when it happens, or both.<sup>3,5</sup> It is unclear how many people die as a result of bleeding from their varicose veins, but a report from Australia found that it accounted for 1/1000 autopsies.<sup>6</sup> The limited number of case reports and published case series are dominated by deaths of people who are living alone, who are vulnerable with physical or mental disability, and with contributing factors such as anticoagulant medication or alcohol consumption.<sup>3-5</sup>

### HOW TO RECOGNISE THE RISK OF BLEEDING IN PATIENTS WITH VARICOSE VEINS

The risk of bleeding from varicose veins that are covered by normal healthy skin is minuscule, even if the veins are large. Only if a traumatic injury pierces the skin directly over a vein might external bleeding occur, so most patients who are concerned about the spectre of external bleeding can be reassured. Patients sometimes observe bruising around varicose veins and refer to this as 'bleeding'. It results from rupture of a varicose vein into the subcutaneous tissues, usually after trauma, and it does not confer the same kind of risk as external bleeding.

External bleeding most often occurs when there is obviously thin, fragile skin over varicose veins, or little thin-walled 'blebs' on the lower leg or foot. Patients with obviously fragile skin or little 'blebs' should be advised what to do if a bleed does occur, and should be referred to secondary care for treatment of their veins. These patients have not been clearly specified in NICE guidance (or in local policies), so referral may be complex in some localities, and emphasis about the clinical features indicating an obvious risk of a bleed should be specified in any referral.

Venous ulcers may also bleed, but it is important to differentiate bleeding from a healing ulcer bed, which can usually be managed with dressings and compression, from an eroded underlying varicosity that demands urgent treatment. A brisk bleed from an underlying vein mandates urgent referral and treatment.

### WHAT HAPPENS WHEN A BLEED OCCURS, AND WHAT TO DO ABOUT IT

When the skin breaks over a varicose vein, then the high venous pressure due to incompetent venous valves causes blood to spurt out briskly, particularly when the foot is dependent. This means that, if the patient remains standing or seated, blood loss can be rapid and profuse. Bleeding may be exacerbated if there is vasodilation, as occurs after a hot bath. The fundamental requirement is to elevate the foot above the level of the heart, which immediately minimises the blood loss. Pressure should then be applied — initially by a hand and then supplemented by any kind of pad. A firm bandage, over a pad, will then provide haemostasis.

Patients who die as a result of bleeding typically do so because they are unaware of the need to elevate the leg and/or because they may not have the physical capacity or the assistance of somebody else to apply pressure to the bleed or to apply a bandage. Application of a tourniquet proximal to the

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## Box 1. Key points

- Most patients who are worried about bleeding from their varicose veins can be strongly reassured and do not need treatment. Varicose veins covered by normal healthy skin are not at risk of bleeding.
- Selected patients do need referral and treatment without delay: those who have bled; those with fragile skin and thin-walled 'blebs'; and those with ulcers (for whom referral is important anyway, not just for the risk of bleeding).
- Clear advice should be provided more often on what to do if a bleed occurs, in patients who may be at risk. Failure simply to elevate the leg and to apply pressure can result in death.

bleed exacerbates blood loss and can lead to death.<sup>5</sup>

Patients who are at risk (veins beneath fragile skin, ulcers, living alone, frail, or who have a disability) should receive advice about emergency control of bleeding. However, this should not undermine or replace prompt treatment of their veins (and any ulcer), which is the important requirement.

### WHAT HAPPENS WHEN A PATIENT HAS BEEN REFERRED TO A VASCULAR SPECIALIST

When a bleed has occurred, urgent referral to a venous specialist is essential, because the varicose veins need to be ablated to avoid recurrence, which is otherwise a significant risk.<sup>7</sup> This means detailed assessment, followed by treatment to reduce the venous hypertension caused by superficial venous reflux — commonly by endothermal ablation, foam sclerotherapy, or some other ablative method to deal with the main incompetent veins. Immediate local sclerotherapy (followed by compression bandaging) of the veins in the vicinity of the bleed may be used to guard against repeated bleeding during

any delay in providing definitive treatment. Adjunctive sclerotherapy should be given for the bleeding veins irrespective of truncal saphenous ablation, particularly if the bleed was from small, thin-walled veins.<sup>7</sup> If bleeding was from an ulcer, then getting the ulcer healed is essential — by a combination of compression and treatment of the veins.

### CONCLUSION

Most patients can be reassured that bleeding from their varicose veins is extremely unlikely, but advice should be readily available about the first-aid treatment of a bleed. Patients with fragile skin, 'blebs', and other risk factors should be advised what to do if a bleed occurs, while they are awaiting specialist treatment. Prompt treatment of venous ulcers is important, whenever they present. Avoidance of bleeding is just one advantage of ulcer healing.<sup>8</sup> Patients at obvious risk should be prioritised for treatment of their veins based not only on clinical features but also on considerations such as social isolation and their capacity to deal with bleeding if it occurs.

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