

No smoke without fire

Why we need to act urgently to tackle the dangers of surgical plume

What is surgical smoke plume, and how do we deal with it? This is a question that is all too common,

particularly in the health service, where it can have serious consequences.

Surgical plume is the term used for the almost invisible vaporous plume that is released following surgical intervention. It comes from the use of thermal devices, as the devices react with the water in the body to release a smoke-like substance. It can be chemical or bacteriological, and can contain hazardous substances, and research suggests that healthcare professionals (HCPs) may be unwittingly exposed to the equivalent of 20–30 cigarettes each day as a result of exposure to surgical plume.¹

Despite this, less than a fifth of HCPs are aware of any policy being in place in their organisation to manage this risk.² COVID-19 illustrated the importance of protecting health care workers, yet there is minimal action when it comes to preventing the harms caused by surgical plume. A survey conducted by the Association for Perioperative Practice (AfPP) shows that 94% of HCPs are concerned about risks to their health, 39% have not received any training on the hazards associated with exposure and only 17% can confirm that there is a local policy for surgical plume management within their organisation.³ We know that there are strict guidelines in place for other occupational health hazards, so why not surgical plume?

The need for national guidelines

One of the ways in which we can do this is to address the lack of national or regional guidance on how to manage the dangers of surgical smoke plume. For example, there is a strong national guidance on sharps injuries that highlights the impact that needlestick injuries can have on surgeons and HCPs, and the blood-borne viruses that can arise as a result.⁴ There are rigid reporting requirements through the RIDDOR framework, meaning in the event of a needlestick injury, healthcare services can take immediate action.⁵

These structures do not exist for surgical plume. In their latest report, the AfPP highlight that 77% of perioperative practitioners do not have evacuation devices available in all operating theatres and procedure rooms at their workplaces, and only 14% say plume evacuation equipment is always used during laparoscopy or endoscopy procedures.⁶ The lack of guidance mandating the use of surgical plume evacuation in procedures where plume is a constant threat lets down the staff who are working to protect us, and the patients who are on the operating table.

At Mölnlycke, we are constantly innovating to protect both staff and patients in health care settings. Our Plume Evacuation Pencil is designed to provide a solution to ensure minimised plume exposure and clear visualisation of the operative site. Additionally, its slim and lightweight design allows surgeons to feel comfortable using it, and gives them extra confidence in feeling safer as they operate.

Educating staff about the risks of surgical smoke plume

We want to act as a partner to the NHS to educate staff and management, and advocate for better guidelines and protective structures. That is why Mölnlycke is delighted to be sponsoring AfPP's Surgical Plume Education Day, to raise awareness of the dangers of surgical smoke plume and bring together actors from across the health service to work together. We believe it is our role as a healthcare service supplier to develop the knowledge needed to highlight the dangers of smoke plume, and provide the equipment to solve it.

Time to act urgently to tackle surgical plume

We are calling on the whole of the healthcare industry to build on the excellent work being facilitated

by the AfPP and its partners, and make a concerted effort to raise awareness of the dangers of smoke plume, and the need for more guidelines to ensure that healthcare staff and patients are protected in the operating theatre.

This is no easy feat, and at Mölnlycke we acknowledge that our Plume Evacuation Pencil marks only the beginning of our journey to tackling smoke plume. It is imperative that we do everything in our power to understand and tackle surgical plume urgently, and at Mölnlycke we are calling on our industry peers to work together to make the operating theatre a safe environment for those that enter it.

We must act urgently to develop the guidelines and structures necessary to protect HCPs and patients. ■

Find out more at:

www.molnlycke.co.uk/surgicalplume



References

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