

# PROTECTING THE PROTECTOR'S HANDS!

*The protection from radiation during image guided procedures is an absolute necessity to keep safe the hands of surgeons that save our lives, writes Satyaki Banerjee*





**A**dequate radiation protection for medical professionals involved in image guided surgical procedures is vital to limit damage to healthy tissues due to extended exposure to ionising radiation. Optimising protection against ionising radiation requires a team commitment and understanding of the various radiation protection options available like aprons, shields, eye wear and gloves specifically designed for medical professionals who are exposed to ionising radiation for extended durations.

The use of radiation protection aprons alone might not be enough since the eyes and the hands are being exposed constantly to scattered radiation and sometimes the hands are exposed to the direct x-ray beam. The use of radiation protection eyewear and gloves are there essential for adequate protection.

All across the world, the number of image guided procedures being

performed has increased manifold, and with it the quantum of radiation exposure medical professionals are being exposed to. Statistics reveal a significant increase in radiation induced cancer incidences amongst medical professionals due to inadequate radiation protection measures.

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leaders in conjunction with industry to educate medical professionals across the country on the deterministic and stochastic effects of radiation exposure. There is adequate requirement of radiation protection to prevent severe health problems for both patients and medical professionals as any exposure to ionizing radiation carries a risk of causing cancer and affects the tissues which lead to hair loss and cataracts.



Radiation protection gloves are effective in counterbalancing the risk of scatter beam radiation exposure during image guided procedures. The hands are the body parts that are most exposed to radiation during such procedures, unfortunately it is also the most neglected part when it comes to radiation

protection. While most professionals would use an apron they would skip the

use of gloves which results in damaging the body at cellular level. These exposed hands are the source for the many skin diseases and cancer causing phenomena.

High quality radiation protection gloves are

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manufactured using either natural latex, or synthetic latex alternatives with bismuth as the radiation attenuation element. These gloves are specially designed to allow the maintenance of dexterity during surgical procedures. The finest radiation protection gloves offer excellent tactile sensitivity at the finger tips, an important consideration for widespread use of gloves. Hence protecting the life saviour from X-ray radiation.

The lead-free gloves with thickness range 0.20 mm to 0.40 mm provides excellent tactile sensitivity & improved attenuation (40% - 63%) performance in working range of 60 kVp – 120 kVp.

The gloves feature the additional benefit of x-ray protection properties on top of its core material characteristics of impermeability and protection against chemicals & microorganism. The gloves exhibit very good x-ray absorption properties since the mass attenuation coefficient of Bismuth is greater than that of other composite materials.

Ideal gloves for any high exposure procedures in a variety of settings such as emergency rooms, operating theatres, Cath labs and vascular procedures. The extra thickness of these gloves is optimized for the best balance of protection, thus allowing for comfortable fit during most surgical procedures.



He joined the leadership team of Trivitron Group of Companies as President- Kiran Medical Systems in March 2015. Based in Navi Mumbai; Satyaki is responsible for the global commercial operations of Kiran Medical Systems in addition to managing the North America, APAC, Russia and Eastern European business of Labsystems Diagnostics Oy. He also leads the Alliances, Regulatory Affairs and Intellectual Property functions within the Trivitron Group. Prior to joining Trivitron; he was Vice President of International Business Development at Panacea Biotec.

**SATYAKI BANERJEE HAS OVER 19 YEARS OF EXPERIENCE IN THE HEALTHCARE AND PHARMACEUTICAL INDUSTRY.**