Radiation Protection Guidelines for Safe Handling of Decedents

I have just a few comments on the document:

- (1) Only 4 unsealed source radioisotopes are listed. I think it would be of benefit to include at least 2 more: Ra-223 (11.4 day half-life) (used as "Xofigo" for bone mets quite commonly in Canada now) https://www.xofigo-us.com/index.php and Lu-177 (used as dotatate for neuroendocrine tumour treatment) (half-life 6.7 days). Even if you end up stating that no special precautions are required for decedents who have had these therapies, it would be of benefit to Nuclear Medicine departments and to RSOs
- (2) Section 6.4.1 regarding autopsy and embalmment for I-131 patients who have passed within 2 months of therapy directs the treatment centre's RSO to be consulted. A similar statement occurs for cremation in section 6.4.2. I think it would be beneficial to provide more guidance for the RSO for these cases. For example, could you provide criteria that the RSO would have to meet, by whatever arrangement or special precautions he/she recommended, for the maximum dose expected to any individual or set of individuals because of the way the decedent was handled? For example, say a patient passes away 2 weeks following administration of 7.4 GBq of I-131 for thyroid cancer. The family wishes to have the body cremated. Can a method acceptable to the CNSC be described for how the RSO would be able to show this could be done safely (or not)? My concern is that many Nuclear Medicine RSOs would not know a good way to start. Could you suggest that the RSO work with a CNSC contact to find a safe solution?
- (3) Another issue with the unsealed source therapy is that they don't necessarily all carry wallet cards like brachytherapy patients. What needs to be put in place, for example, so that if a patient passes away 10 months after Strontium-89 treatment, appropriate precautions are taken at cremation?
- (4) Do crematoria need to have contamination monitors? From a contamination incident I was involved with years ago, it seems to me that Iodine is amazingly reactive once it's an aerosol (sticks to everything). Should crematoria that cremate decedents containing

either I-125 or I-131 be required to check for contamination after the fact?

Thanks, Curtis

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