



MALAYSIAN SOCIETY OF NUCLEAR MEDICINE & MOLECULAR IMAGING
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INFECTION CONTROL MEASURES IN NUCLEAR MEDICINE DEPARTMENT IN THE MIDST OF COVID-19

25th March 2020

Dear colleagues,

There has been growing number of COVID-19 cases recently and Malaysian National Security Council has extended the Movement Control Order till 14th April 2020. Although nuclear medicine is not directly involved in managing COVID-19, all nuclear medicine personnel should ensure adequate control measures to protect themselves, staffs and patients from cross transmission, in particular asymptomatic COVID-19 patients who may undergo nuclear medicine procedures.

The long practice of “**Time, Distance, Shielding**” principles in radiation protection can also be applied in infection control:

- Time: re-arrange work rotation; re-schedule non-urgent case appointment; reduce interactive time with patients.
- Distance: practice 1-2 meter social distance.
- Shielding: wear surgical mask, goggle, face mask and gloves.

On top of that, **personal and hand hygiene** are very important to prevent the transmission of virus.

Here are some suggestions by MSNMMI on how we could prepare the department.

Staff:

- Biweekly rotation of work schedule if possible. This is to ensure adequate staffing should the staffs become suspected in contracting the virus or ill.
- Limit unnecessary mobility of staffs in the department to avoid cross transmission. Cross-over of staffs should be minimized. Make use of social media for inter-team communication.
- Wear surgical mask and gloves, and maintain hand hygiene at all times especially those who need to interact with patients. For example, setting brachytherapy, preparing patient on scanner, pharmacological stress test, and so on. Additional face shield or goggle is encouraged.
- Change to scrub suit if possible while in the department.



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- Surgical mask with/without face shield/ goggle is a must when dealing with patient with respiratory symptoms in particular patient without mask.
 - Discard gloves, wash hand and use of hand sanitizer is a must after dealing with each patient.
 - Team leader should monitor staff's well-being. It is advisable to keep a log to record staff's wellbeing such as temperature.
 - Report to superior and COVID team immediately if develop fever, flu, cough, headache, anosmia, muscle ache or breathlessness.
 - Change clothes and wash yourself immediately when reaching home.

Patient:

- Reduce patient volume in order to avoid over-crowded waiting area. Patient can only be accompanied by maximum 1 family member.
- Encourage patients to wear mask at all times.
- Seats in the registration, pre-injection and post-injection areas should be kept in at least 1 meter distance.
- Re-screen patient's symptoms and contact/ travel history during registration although he/she has been screened at the entrance of hospital.
- Report to team leader and COVID team immediately in suspicious case.
- All patients should change to hospital gown. Patient must advised to wash hand or use of hand sanitizer before and after scanning. This is to avoid contamination to scanner couch.
- Disinfecting wipe of scanner between patients is encouraged. "Terminal" cleaning in suspected or positive case.
- Put up sign to advice patient to close the toilet lid before flushing. This is to avoid generating aerosols in the toilet.
- Advice patient to leave the department quickly after completion of examination.

Radionuclide therapy involves the use of high activity, long half-lives radiopharmaceutical, which requires higher standard of radiation protection. Hence, thing may get very complicated if patient developed COVID symptoms shortly after radionuclide therapy. It is advisable to postpone any non-urgent therapeutic case. Thorough screening with/without COVID test should be done prior performing any radionuclide therapy.

Clinic:

- Refer to "staff and patient section".
- Reduce patient volume by re-scheduling non-urgent case and follow-up.



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- Keep at least 1 to 2 meter away during consultation.
 - Reduce consultation time for each patient whenever possible.
 - Advise the patient to leave the department quickly after consultation.

Wards:

- Refer to “staff and patient section”.
- Daily monitoring of radiation level and patient’s symptom.
- Discharge with post-therapy instruction and memo to subsequent medical personnel who may attend to the patient in the next one week.
- Follow respective “radiation protection” team’s and COVID team’s SOP if crisis arises.

Lastly, the purpose of these suggestions are to assist nuclear medicine personnel in providing appropriate infection control apart from radiation protection to staffs and patients. They are not inflexible and should not be used to establish a legal standard of care. Instructions from Ministry of Health and respective hospital policy should be adhered at all times.

Take care and stay safe.

Warmest regards,

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