**Tajuk: Roles and Challenging of Imaging & Observing the Radiation safety During Pandemic Covid-19**

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**The Roles of imaging in patient management during the covid 19 pandemic**

1. CT scan to be done in cases with

* management or oxygenation dilemma or drug escalation process
* prognostication
* follow up

1. Flow Chart for COVID 19 patients at hospital

SUSPECT or CONFIRM CASE with MILD SYMPTOM

ICU/HWD

Hospital Admission

SUSPECT or CONFIRM CASE with MORDERATE TO SEVERE SYMPTOMS

Home Discharge

Normal Ward

Clinical Lab + Chest Imaging

1. Imaging Tools of the chest for covid-19

|  |  |  |
| --- | --- | --- |
| CXR | CT SCAN | LUNG US |
| * Lower sensitivity and might have higher specificity * Less- resources intensive * Lower radiation doses * Easier to repeat * Can be done portable equipment at the point of care | * High sensitivity but a relatively low specificity * Can be useful in patient with some pre-existing pulmonary diseases * Can be use but it has more radiation and longer examination time | * Very low certainty evidence * Might be helpful with the appropriate expertise * Can be done at the point of care * Required closer physical proximity of the operator to the patient for long period * Required specific infection prevention and control precautions * No radiation |

**Challenges of observing radiation safety for healthcare worker and patient during pandemic**

1. The usage of ionizing radiation in medical practice

* Diagnosis
* Therapy
* Prevention
* Forensic
* Medical research

1. Categories of exposure

|  |  |
| --- | --- |
| Occupational exposure | exposure of workers  incurred as a result of their work (with the exception of excluded exposures and exposures from  exempt activities; medical exposure; and background) |
| Public exposure | All exposure of the public/members of public other than occupational exposure and medical exposures of patient |
| Medical exposures | * Incurred by patient * Person who knowingly assisted in the support and comfort of patient * Volunteers in a medical research program |

1. Factors that affecting in radiation safety for patient

* Design
* Operating error
* Equipment failures
* Wrong information
* Clinical interpretation is incorrect

1. Notification and report of all accidental exposure or emergency exposure

RE-ASSESSMENT

Notify the Appropriate Authority (AA)/MOH (within 24 hour)

Verification

Submit report to MOH (within 30 days after occurrence)

Safety Assessment by hospital

Radiation Incident

OK

Record