Ultrasound :: COVID-19 Radiology Reporting And Data Standards (RADS) *Ver 0.2 Rel. on 30 Mar. 2020*

Name: Age: Gender: POCUS: □ Yes   □ No

Patient Id: Days since symptoms: Days in follow-up:

Scan frequency: Probe type: □ Linear   □ Curvilinear   □ Phased array □ Other_____

Pre-existing Conditions:

Comorbidities:

Lung sliding *Tick one applicable*	□ Present*	□ Reduced	□ Absent
Lung pulse *Tick one applicable*	□ Present* □ Increased	□ Reduced	□ Absent
A-Lines *Tick one applicable*	□ Present*	□ Reduced	□ Absent
B-Lines	Distribution* *Tick one applicable*	□ Focal □ Confluent	□ Multifocal
Tick one applicable	□ B1* □ B2*	□ Normal	□ Absent
Z-Lines/Comet tails	*Tick one applicable*	□ Present%	□ Absent
Lung point	*Tick one applicable*	□ Present	□ Absent*
Pleural line abnormalities	□ Thickening*	□ Irregularity*	□ Subpleural consolidation*
Lung consolidation	*Tick one applicable*	□ Present*	□ Absent
	Distribution	□ Nontranslobar*	□ Translobar*
	Vascular Pattern		
	Size		
Air bronchograms	*Tick one applicable*	□ Static	□ Dynamic*
Spine sign	*Tick one applicable*	□ Negative	□ Positive%
Curtain sign	*Tick one applicable*	□ Present	□ Absent%
Pleural effusion	*Tick one applicable*	□ Present%	□ Absent

* More likely COVID-19 indicators

% Less likely COVID-19 indicators

COVID-19 CT findings likely correlation to Ultrasound findings

CT findings	Ultrasound findings
Thickened pleura	Thickened, irregular pleural lines
Ground glass shadow and effusion	B lines (multifocal, discrete or confluent)
Pulmonary infiltrating shadow	Confluent B lines
Subpleural consolidation	Small consolidations
Translobar consolidation	Translobar consolidation +/- air bronchograms
More than two lobes affected	Multilobar distribution of abnormalities

Name: Age: Gender: View: □ AP   □ PA   □ LL

Patient Id: Days since symptoms: Days in follow-up:

Pre-existing Conditions:

Comorbidities:

Ground Glass Opacities (GGO)	Side *Tick one applicable*	□ Bilateral	□ Unilateral
	Lobe *Tick all applicable*	□ Lower □ Middle	□ Upper
	Location *Tick all applicable, only in LL view*	□ Anterior □ Posterior	□ NAD
Other Opacities	Type *Tick one applicable*	□ Patchy □ Diffuse	□ Multifocal
	Side *Tick one applicable*	□ Bilateral	□ Unilateral
	Lobe *Tick all applicable*	□ Lower □ Middle	□ Upper
	Location *Tick all applicable, only in LL view*	□ Anterior □ Posterior	□ NAD
Consolidation	Type *Tick one applicable*	□ Lobar □ Patchy	□ Diffuse □ Multifocal
	Side *Tick one applicable*	□ Bilateral	□ Unilateral
	Lobe *Tick all applicable*	□ Lower □ Middle	□ Upper
	Location *Tick all applicable, only in LL view*	□ Anterior □ Posterior	□ NAD
	Air bronchogram *Tick one applicable*	□ Present	□ Absent
Associated features	Nodules *Tick all applicable*	□ Pulmonary	□ Centrilobular
	Fibrosis[1] *Tick one applicable*	□ Present	□ Absent
	Bronchiectasis *Tick one applicable*	□ Present	□ Absent
Atypical features[2] *Tick all applicable*	□ Mediastinal Lymphadenopathy	□ Pleural effusion □ Cavitation	□ Pneumothorax □ Pericardial effusion

COVID-19 Temporal Staging Indicators

Early stage (0-4 days)	GGO only
Progressive stage (5-8 days)	Increased GGO and crazy paving appearance
Peak stage (9-13 days)	Consolidation
Absorption stage (>14 days)	With improvement, fibrous stripes appear and resolution occurs at 1 (one) month and beyond

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[1] Fibrosis changes are seen in the absorption stage (>14 days)
[2] Atypical features should raise concern for super-added bacterial pneumonia

CT :: COVID-19 Radiology Reporting And Data Standards (RADS) *Ver 0.2 Rel. on 30 Mar. 2020*

Name: Age: Gender: HRCT: □ Yes   □ No

Patient Id: Days since symptoms: Days in follow-up:

Pre-existing Conditions:

Comorbidities:

Ground Glass Opacities (GGO)	Location *Tick all applicable*	□ Peripheral □ Subpleural	□ Central
	Spread *Tick all applicable*	□ Lobular □ Segmental	□ Lobar
	Side *Tick one applicable*	□ Bilateral	□ Unilateral
	Lobe *Tick all applicable*	□ Lower □ Middle	□ Upper
Thickening	Septal thickening[3] *Tick one applicable*	□ Inter-lobular	□ Intra-lobular
	Bronchovascular thickening	□ Present	□ Absent
	Pleural thickening	□ Present	□ Absent
	Subpleural thickening	□ Present	□ Absent
Air Space Consolidation	Location *Tick all applicable*	□ Peripheral □ Subpleural	□ Central
	Side *Tick one applicable*	□ Bilateral	□ Unilateral
	Lobe *Tick all applicable*	□ Lower □ Middle	□ Upper
	Air bronchogram	□ Present	□ Absent
Associated features	Nodules *Tick all applicable*	□ Pulmonary	□ Centrilobular
	Fibrosis[4] *Tick all applicable*	□ Fibrous stripes/streaks/bands	□ Bronchus deformation □ Subpleural bands
	Widening of vessels	□ Present	□ Absent
	Traction bronchiectasis	□ Present	□ Absent
Atypical[5] *Tick all applicable*	□ Mediastinal Lymphadenopathy □ Pleural effusion □ CT halo sign	□ Multiple tiny pulmonary nodules □ Tree-in-bud	□ Pneumothorax □ Cavitation □ Pericardial effusion

COVID-19 Temporal Staging Indicators

Early stage (0-4 days)	Normal CT or GGO only
Progressive stage (5-8 days)	Increased GGO and crazy paving appearance
Peak stage (9-13 days)	Consolidation
Absorption stage (>14 days)	With improvement, fibrous stripes appear and resolution occurs at 1 month and beyond

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[3] Crazy paving appearance = GGO + Septal thickening
[4] Fibrous changes are generally seen in absorption stage after 14 days
[5] Atypical features raise concern for super-added bacterial pneumonia

COVID-19 Action Group on AI and Radiology