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STRUCTURED REPORTING THORAX TC COVID-19

English translation: courtesy by Martina Mennella



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1. CLINICAL REFERENTS

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2. STRUCTURE OF THE REPORT

CLINICAL INFORMATION

Known Covid- 19 Infected Patient	Yes/No	
Provenance from high risk areas	Yes/No	
	If yes, indicate which one	
Patient placed on isolation	Yes/No	
Previous Contacts with nCov infected patients	Yes/No	
Swab [swab detail visible if Yes and repeatable]	Yes/No	
	First swab date	
	Outcome	Positive negative
	Second swab date	
	Outcome	Positive negative
Symptoms [multiple selection]	Fever	
	Cough	
	Rhinitis	
	Dyspnea	
	Pharyngodynia	
	Myalgias	
	Asthenia	
	Conjunctivitis	
Headhache		
Nausea		
Vomit		
Dhiarrea		
Notes		



Laboratory Exams	Limphopenia	Yes/No/Not available
	PCR Elevation	Yes/No/Not available
	High ESR	Yes/No/Not available
	LDH Values Elevation	Yes/No/Not available
	Alteration in hepatic Values	Yes/No/Not available
	CK Values Elevation	Yes/No/Not available
	Ketoacidosis	Yes/No/Not available
	Hypoalbuminemia	Yes/No/Not available
	PH	
	pCO ₂	
ARDS (PaO₂/FiO₂ ratio)	Slight (≥ 200 - 300 mmHg)	
	Moderate (>100 - ≥ 300 mmHg)	
	Severe (≤ 100 mmHg)	
Known Lung Comorbidity	Yes/No	
	Description	
Previous (>5 years) or Actual Presence of Neoplastic Disease	Yes/No	
	Description	
COMORBIDITY		
Presence of Cardiopathy	Yes/No	
	Description	
Obesity	Yes/No	
	Description	
Hyperthension	Yes/No	
	Description	



Smoker	Yes/No/Ex	
SMOKE DETAIL		
Number of cigarettes per day [if current smoker]		Weak (<15) Strong (>= 15)
Years of smoke		
Number of years of cessation [if ex smoker]		<= 15 >15
Number of cigarettes per year (pack-year) [if ex smoker or current smoker]		(n ° cigarettes per day x smoke years / 20)
Use of electronic cigarette		Yes/No
Number of electronic top-ups per day [if electronic cigarette = yes]		
Number of years [if electronic cigarette = yes]		
Notes		
Recent changes in smoking habits		
Ace Inhibitors therapy	Yes/No	
	Description	
VENTILATORY ASSISTANCE		
Intubation	Yes/No	
PEEP	Yes/No	
Non Invasive Ventilatory Assistance	Yes/No	
PREVIOUS EXAMS		



Previous Exams [detail repeatable if YES]	Yes/No	
	Date of Exam	
	Type	XRAY CT
	Outcome	

SURVEY METHOD

CHEST XRAY		
Performed chest Xray	Yes/No	
Date / Hour of Exam		
Outcome	Positive Negative	
Signs of Interstitial Pneumonia [visible only if the outcome is positive]	Yes/No	
Pleural Effusion [visible only if the outcome is positive]	Yes/No	
Reduction of Lung Volumes [visible only if the outcome is positive]	Yes/No	
CHEST CT		
Date / Hour of Exam		
Images	Thickness	[mm]
	Reconstruction Algorithm	Partial High Resolution Standard
Movement or Respiratory artifacts	Yes/No/Partial	
	Notes	



FEATURES

PARENCHYMA		
Ground-Glass [detail visible only if Yes]	Yes/No	
	Localization	Right monolateral Left monolateral Bilateral
	Distribution in the axial plane [multiple selection of items]	Diffuse Preferably peripheral Preferably central Declivious Anti- declivious
	Cranio-caudal distribution [multiple selection of items]	Diffuse Multifocal / Patching Prevalent in the upper lobes Prevalent in the lower lobes Gravitational
	Site	All lobes: YES/NO If No, indicate which, with multiple selection RUL (Right Upper Lobe) ML (Middle Lobe) RLL (Right Lower Lobe) LUL (Left Upper Lobe) LLL (Left Lower Lobe)
Consolidations [detail visible only if Yes]	Yes/No	
	Localization	Right monolateral Left monolateral Bilateral
	Distribution in the axial plane [multiple selection of items]	Diffuse Preferably peripheral Preferably central Declivious Anti- declivious



	Cranio-caudal distribution [multiple selection of items]	Diffuse Multifocal / Patching Prevalent in the upper lobes Prevalent in the lower lobes Gravitational
	Site	All lobes: YES/NO If No, indicate which, with multiple selection RUL (Right Upper Lobe) ML (Middle Lobe) RLL (Right Lower Lobe) LUL (Left Upper Lobe) LLL (Left Lower Lobe)
Air Bronchogram	Yes/No	
Micro- nodules	Yes/No	
	Distribution [single selection]	Centrilobular Perilymphatic Random
Nodules [detail visible only if Yes]	Yes/No	
	Dimension [mm] [diameter of the major nodule]	[mm]
	Site [multiple selection of items]	All lobes: YES/NO If No, indicate which, with multiple selection RUL (Right Upper Lobe) ML (Middle Lobe) RLL (Right Lower Lobe) LUL (Left Upper Lobe) LLL (Left Lower Lobe)
	Features [multiple selection of items]	Solid Subsolid Cavitated Calcified Halo sign
	Notes	



Presence of septal thickness	Yes/No	
Crazy Paving	Yes/No	
Reversed Halo Sign	Yes/No	
Pleural Effusion [detail visible only if Yes]	Yes/No	
	Site	Right Left Bilateral
	Grade	Slight Mild Massive
	Thickness	[mm]
Pericardial Effusion [detail visible only if Yes]	Yes/No	
	Grade	Slight Mild Massive
	Thickness	[mm]
MEDIASTINUM		
Non-calcific mediastinal lymph nodes (detail visible only if "Yes" and repeatable)	Yes/No	
	Position	Antero-superior Mediastinal right Mediastinal left Subcarinal
	Maximum diameter dimensions	[mm]
Pulmonary Artery Trunk Diameter	Normal (< 29 mm) Increased (>= 29 mm)	
	Segmental Artery/ Bronchus Ratio > 1 affecting more than three lung lobes [visible if increased diameter]	Yes/No
Presence of Barotrauma	Yes/No	
	PNX [visible if Signs = yes]	Yes/No
	Pneumomediastinum [visible if Signs = yes]	Yes/No
	Subcutaneous emphysema	Yes/No



	[visible if Signs = yes]	
CONCLUSIONS		
Healthy right lung parenchyma	[%]	
Emphysematous right pulmonary parenchyma	[%]	
Right lung parenchyma with Ground-Glass areas	[%]	
Right lung parenchyma with consolidation areas	[%]	
Healthy left lung parenchyma	[%]	
Emphysematous left pulmonary parenchyma	[%]	
Left lung parenchyma with Ground-Glass areas	[%]	
Left lung parenchyma with consolidation areas	[%]	
Suspected Features for Covid-19 disease	Yes/No	
Evolution Despite Previous Exams	Stable Improvement Worsening	
	Notes	
Complications	Yes/No	
	Description	



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3. REPORT IMPLEMENTATION EXAMPLE

The screenshot shows a report interface with three main sections: "Clinical information" (blue), "Survey method" (green), and "Features" (orange). Each section has a checkmark icon on the left and a timestamp "(last update 27 Mar 2020 02:30 pm)" on the right. The "Features" section also includes a list icon on the left. At the top, there are three tabs: "Clinical information", "Survey method", and "Features", with a checkmark icon to the right of the "Features" tab. The bottom right corner of the interface displays the logos for "exprivia" and "ITALTEL".



Clinical information | Survey method | Features

Clinical information (last update 27 Mar 2020 02:39 pm)

Consent to the treatment of clinical information and CT images in anonymized form for scientific and epidemiological research purposes and for the development of IT support tools for diagnosis and therapy. Yes No

Known Covid-19 infected patient Yes No

Provenance from high risk areas Yes No

Patient placed on isolation Yes No

Previous contacts with nCov infected patients Yes No

Swab Yes No

Date: 09/03/2020 Outcome: positive

Symptoms Yes No

asthenia

dhiarrea

Laboratory exams

Limphopenia	<input type="text"/>	<input type="text"/>
PCR elevation	<input type="text"/>	<input type="text"/>
High ESR	<input type="text"/>	<input type="text"/>
LDH values elevation	<input type="text"/>	<input type="text"/>
Alteration in hepatic values	<input type="text"/>	<input type="text"/>
CK values elevation	<input type="text"/>	<input type="text"/>
Ketoacidosis	<input type="text"/>	<input type="text"/>
Hypoalbuminemia	<input type="text"/>	<input type="text"/>
PH	<input type="text"/>	<input type="text"/>
pCO2	<input type="text"/>	mmHg
ARDS (PaO2/FiO2 ratio)	<input type="text"/>	<input type="text"/>

Known lung comorbidity Yes No

Previous(>5 years) or actual presence of neoplastic disease Yes No

Comorbidity

expriA | ITALTEL



Clinical information | Survey method | Features

Comorbidity

Presence of Cardiopathy Yes No

Obesity Yes No

Hyperthension Yes No

Smoker Yes No

Smoker | v

Years of smoke

Number of cigarettes per year (pack-year)

Electronic cigarettes Yes No

Number of electronic top-ups per day

Number of years

Recent changes in smoking habits

Ace Inhibitors therapy Yes No

Ventilatory assistance

Intubation Yes No

PEEP Yes No

Non invasive ventilatory assistance Yes No

Previous exams

Previous exams Yes No

Date	Type	Outcome
02/03/2020	XRAY	

Other notes...

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Clinical information Survey method Features

Clinical information (last update 27 Mar 2020 02:40 pm)

Survey method (last update 27 Mar 2020 02:42 pm)

Chest Xray

Performed chest Xray Yes No

Date/hour of exam 02/03/2020 :

Outcome positive

Signs of Interstitial Pneumonia Yes No

Pleural effusion Yes No

Reduction of lung volumes Yes No

Chest CT

Date/hour of exam 27/03/2020 14:36

Images

Thickness mm

Reconstruction algorithm Partial high resolution

Movement or respiratory artifacts Partial

Other notes...

Features



Clinical information | Survey method | Features |

Features (last update 27 Mar 2020 02:43 pm)

Parenchyma

Ground-Glass Yes No

Localization

Distribution in the axial plane

- diffuse
- preferably peripheral
- preferably central
- declivious
- anti-declivious

Cranio-caudal distribution

- diffuse
- multifocal/patching
- prevalent in the upper lobes
- prevalent in the lower lobes
- gravitational

Site All lobes Yes No

Consolidations Yes No

|



Clinical information | Survey method | Features (last update 27 Mar 2020 02:45 pm)

Features

Parenchyma

Ground-Glass Yes No

Consolidations Yes No

Localization

Distribution in the axial plane

- diffuse
- preferably peripheral
- preferably central
- declivous
- anti-declivous

Cranio-caudal distribution

- diffuse
- multifocal/patching
- prevalent in the upper lobes
- prevalent in the lower lobes
- gravitational

Site All lobes Yes No

Air Bronchogram Yes No

Micro-nodules Yes No

Distribution



Nodules	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Major nodule diameter		mm
Site	All lobes <input type="radio"/> Yes <input type="radio"/> No	
Features	<input type="checkbox"/> solid <input type="checkbox"/> subsolid <input type="checkbox"/> cavitated <input type="checkbox"/> calcified <input type="checkbox"/> Halo sign	
Presence of septal thickness	<input type="radio"/> Yes <input type="radio"/> No	
Crazy Paving	<input type="radio"/> Yes <input type="radio"/> No	
Reversed Halo Sign	<input type="radio"/> Yes <input type="radio"/> No	
Pleural effusion	<input type="radio"/> Yes <input type="radio"/> No	
Pericardial effusion	<input type="radio"/> Yes <input type="radio"/> No	
Mediastinum		
Non-calcific mediastinal lymph nodes	<input type="radio"/> Yes <input type="radio"/> No	
Pulmonary artery trunk diameter		
Presence of Barotrauma		
	<input type="radio"/> Yes <input type="radio"/> No	
Conclusions		
Lung parenchyma	RIGHT	LEFT
Healthy	%	%
Emphysematous	%	%
With Ground-Glass areas	%	%
With consolidation areas	%	%
Suspected Features for Covid-19 disease	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Evolution Despite Previous Exams		
Complications	<input type="radio"/> Yes <input type="radio"/> No	Specify