

Section 2: Classifiable Parenchymal Opacities

2A. ANY CLASSIFIABLE PARENCHYMAL ABNORMALITIES?						YES <input style="width: 30px; height: 20px; border: 1px solid black;" type="checkbox"/> Complete Sections 2B and 2C		NO <input style="width: 30px; height: 20px; border: 1px solid black;" type="checkbox"/> Proceed to Section 3A																																					
2B. SMALL OPACITIES						2C. LARGE OPACITIES																																							
a. SHAPE/SIZE <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center; padding: 2px;">PRIMARY</th> <th style="text-align: center; padding: 2px;">SECONDARY</th> </tr> </thead> <tbody> <tr> <td style="border: 1px solid black; padding: 2px; text-align: center;">p</td> <td style="border: 1px solid black; padding: 2px; text-align: center;">s</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px; text-align: center;">q</td> <td style="border: 1px solid black; padding: 2px; text-align: center;">t</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px; text-align: center;">r</td> <td style="border: 1px solid black; padding: 2px; text-align: center;">u</td> </tr> </tbody> </table> b. ZONES <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center; padding: 2px;">R</th> <th style="text-align: center; padding: 2px;">L</th> </tr> </thead> <tbody> <tr> <td style="padding: 2px;">UPPER</td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> </tr> <tr> <td style="padding: 2px;">MIDDLE</td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> </tr> <tr> <td style="padding: 2px;">LOWER</td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> <td style="border: 1px solid black; width: 30px; height: 20px;"></td> </tr> </tbody> </table>						PRIMARY	SECONDARY	p	s	q	t	r	u		R	L	UPPER			MIDDLE			LOWER			c. PROFUSION <table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="border: 1px solid black; padding: 2px; text-align: center;">0/-</td> <td style="border: 1px solid black; padding: 2px; text-align: center;">0/0</td> <td style="border: 1px solid black; padding: 2px; text-align: center;">0/1</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px; text-align: center;">1/0</td> <td style="border: 1px solid black; padding: 2px; text-align: center;">1/1</td> <td style="border: 1px solid black; padding: 2px; text-align: center;">1/2</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px; text-align: center;">2/1</td> <td style="border: 1px solid black; padding: 2px; text-align: center;">2/2</td> <td style="border: 1px solid black; padding: 2px; text-align: center;">2/3</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px; text-align: center;">3/2</td> <td style="border: 1px solid black; padding: 2px; text-align: center;">3/3</td> <td style="border: 1px solid black; padding: 2px; text-align: center;">3/+</td> </tr> </tbody> </table> SIZE <table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="border: 1px solid black; padding: 2px; text-align: center;">O</td> <td style="border: 1px solid black; padding: 2px; text-align: center;">A</td> <td style="border: 1px solid black; padding: 2px; text-align: center;">B</td> <td style="border: 1px solid black; padding: 2px; text-align: center;">C</td> </tr> </tbody> </table>				0/-	0/0	0/1	1/0	1/1	1/2	2/1	2/2	2/3	3/2	3/3	3/+	O	A	B	C
PRIMARY	SECONDARY																																												
p	s																																												
q	t																																												
r	u																																												
	R	L																																											
UPPER																																													
MIDDLE																																													
LOWER																																													
0/-	0/0	0/1																																											
1/0	1/1	1/2																																											
2/1	2/2	2/3																																											
3/2	3/3	3/+																																											
O	A	B	C																																										
						Proceed to Section 3A																																							

Section 2A: Classifiable Abnormalities

2A. ANY CLASSIFIABLE PARENCHYMAL ABNORMALITIES?

YES

☐

Complete Sections
2B and 2C

NO

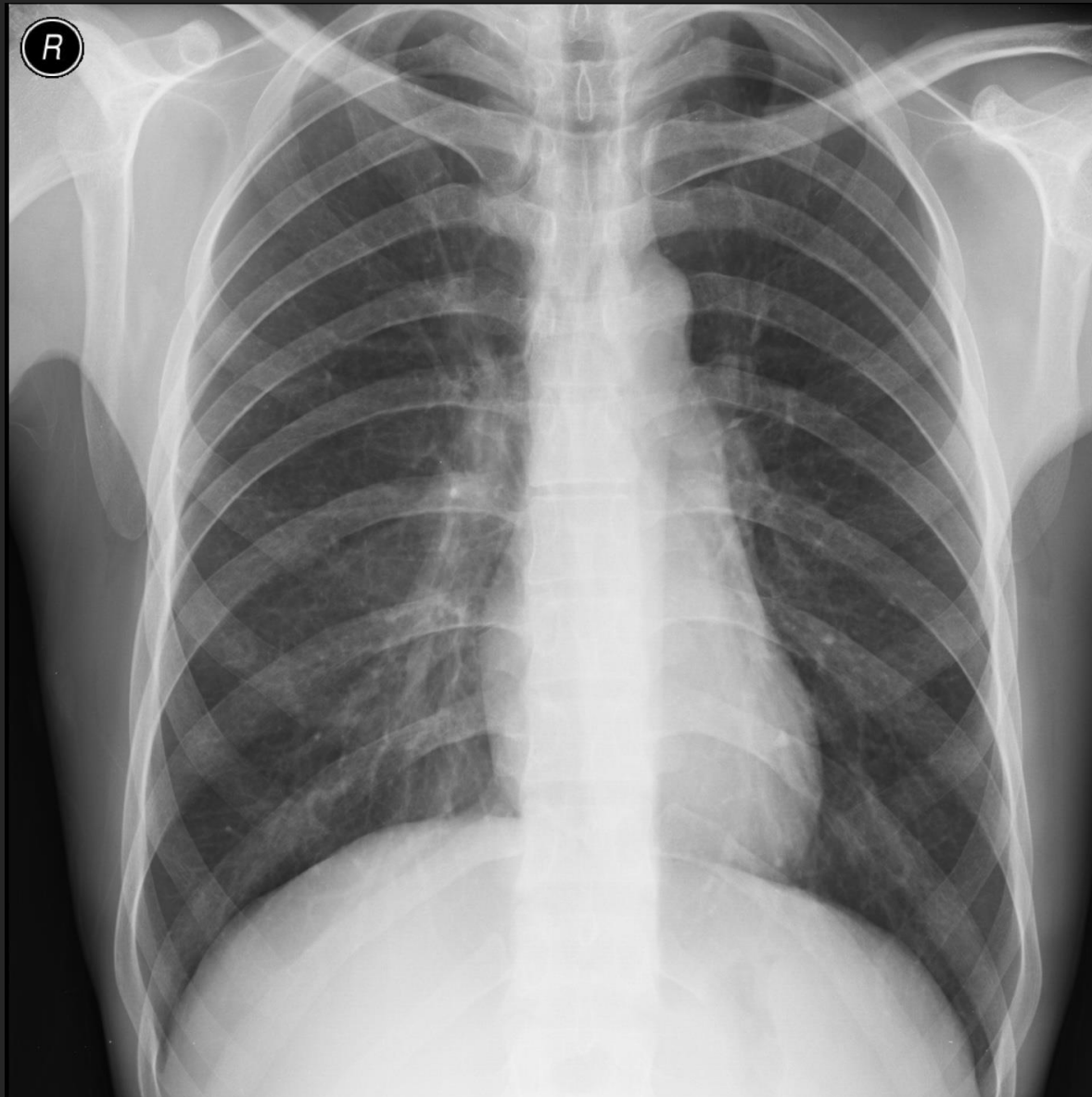
☐

Proceed to
Section 3A

- You must check “YES” or “NO”
- If “YES” complete sections 2B and 2C
- If “NO”, proceed to Section 3A
- “Some appearances are consistent with pneumoconiosis, others are not. Those that are consistent or potentially consistent should be classified and recorded, and those that clearly are not consistent should be indicated in the “**Symbols**” and “**Comments**” sections of the form.” *

*See ILO Guidelines, General Instructions page 2

Normal = “NO”



Section 2B - Small Opacities

2B. SMALL OPACITIES

a. SHAPE/SIZE			
PRIMARY		SECONDARY	
p	s	p	s
q	t	q	t
r	u	r	u

	b. ZONES	
	R	L
UPPER		
MIDDLE		
LOWER		

c. PROFUSION		
0/-	0/0	0/1
1/0	1/1	1/2
2/1	2/2	2/3
3/2	3/3	3/+

1. Shape/size
2. Zones
3. Profusion

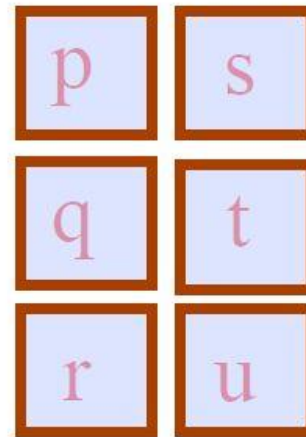
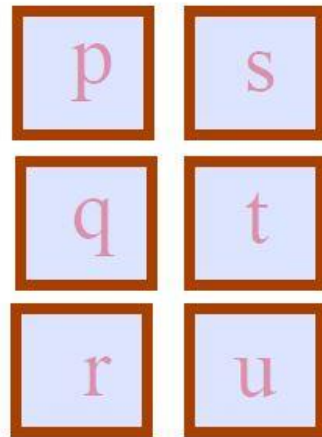
Section 2B: Shape/Size

SMALL OPACITIES

a. SHAPE/SIZE

PRIMARY

SECONDARY



Primary is the dominant shape and size of the small opacity.
Secondary is the next most common shape and size.

Small Opacities

Round Shape
(nodular)

p = up to about 1.5 mm

q = diameters exceed 1.5 mm up to about 3 mm

r = diameters exceed 3 mm and up to about 10 mm

Irregular Shape
(reticular)

s = up to about 1.5 mm

t = widths exceed 1.5 mm up to about 3 mm

u = widths exceed 3 mm and up to about 10 mm

Small Opacities: “p,q,r”



“p”



“q”



“r”

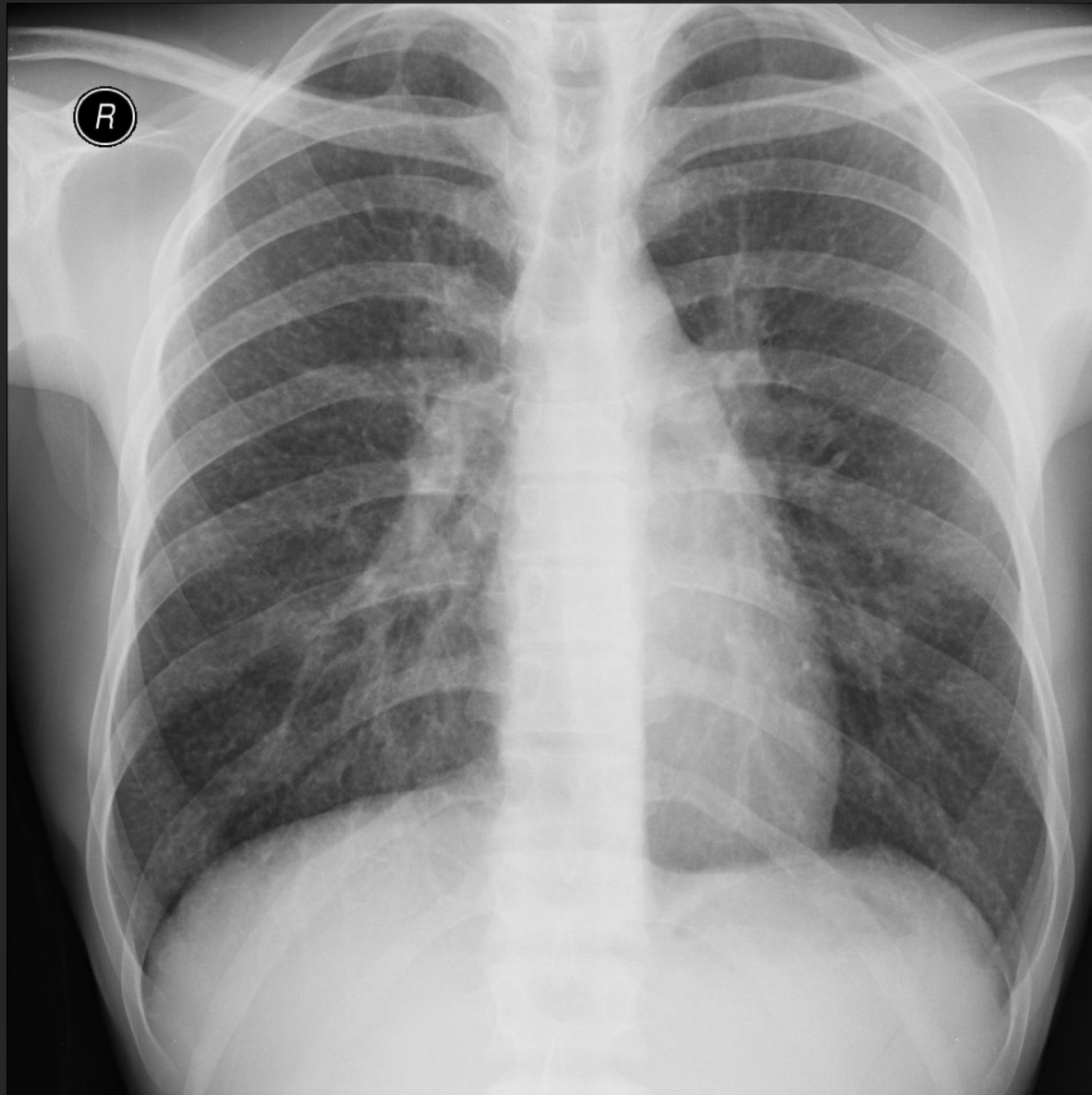
Small Opacities: “p”



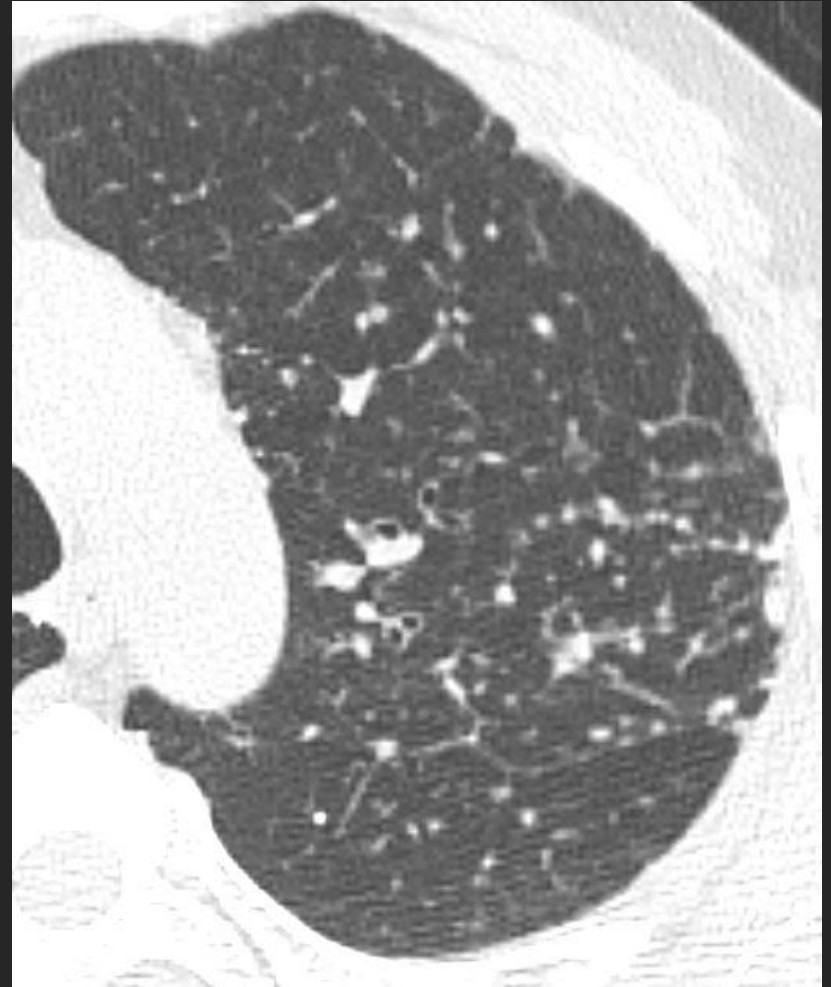
Small Opacities “p”



Small Opacities: “q”



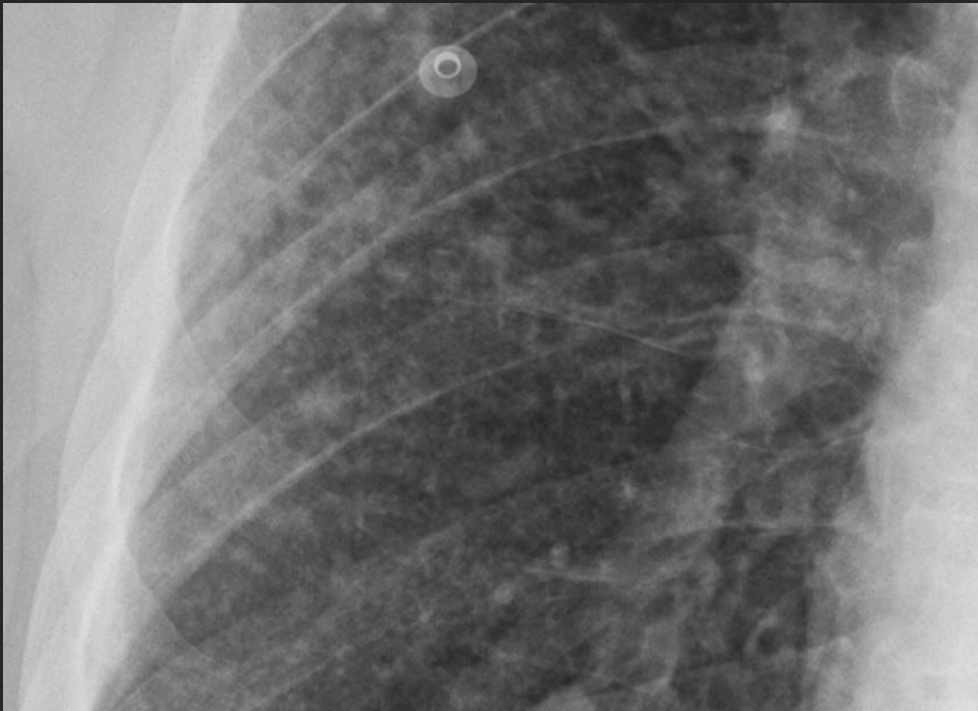
Small Opacities: “q”



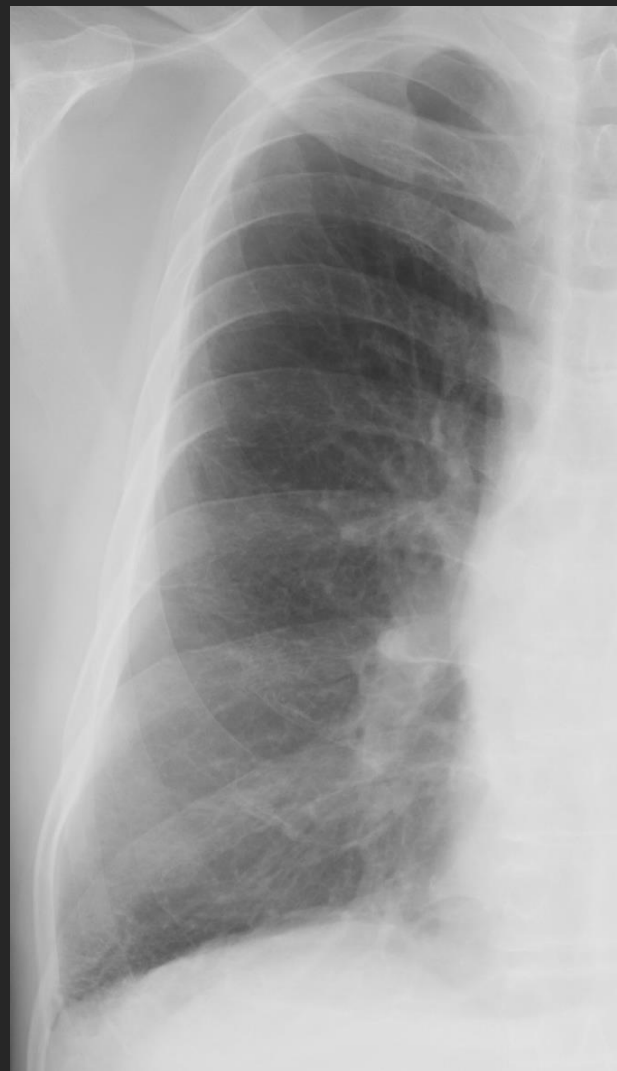
Small Opacities: “r”



Small Opacities: “r”



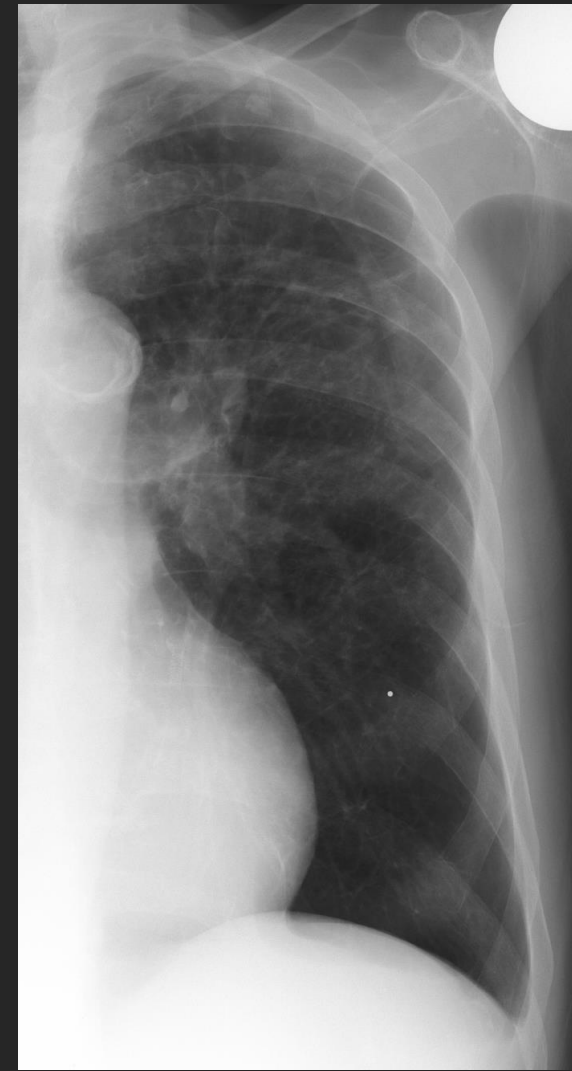
Small Opacities: “s,t,u”



“s”



“t”

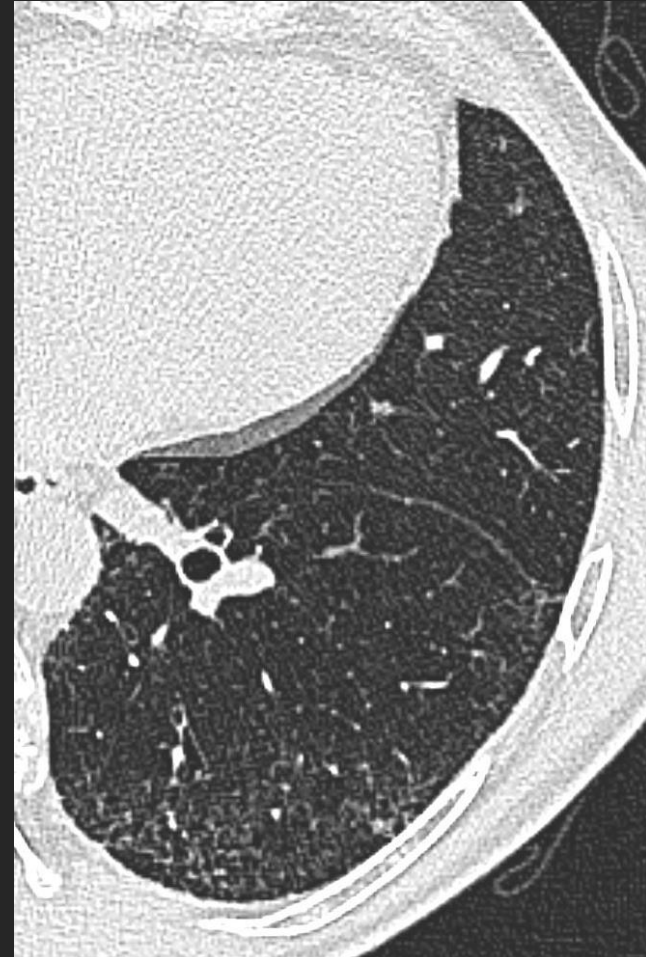
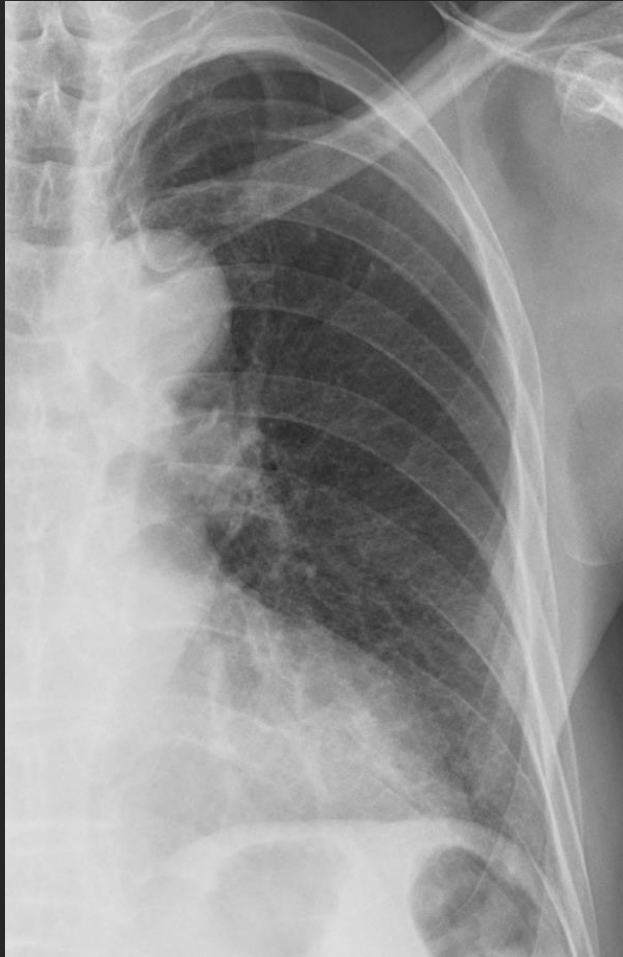


“u”

Small Opacities: “s”



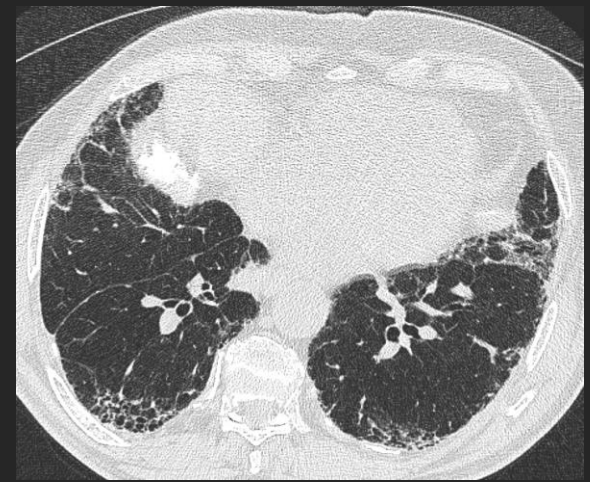
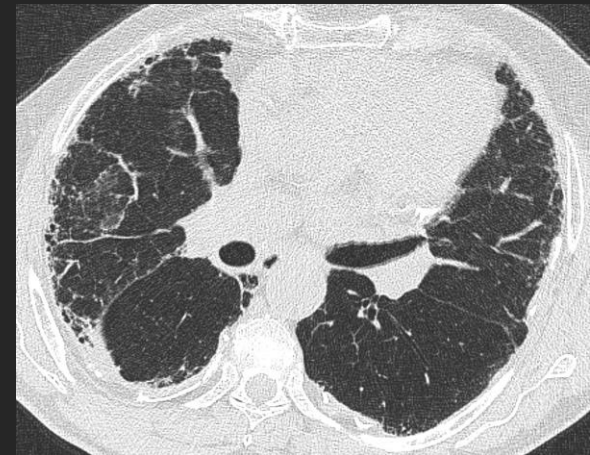
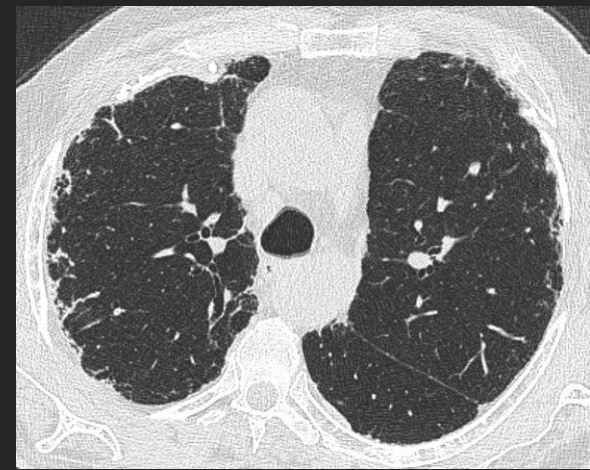
Small Opacities: “s”



Small Opacities: “t”



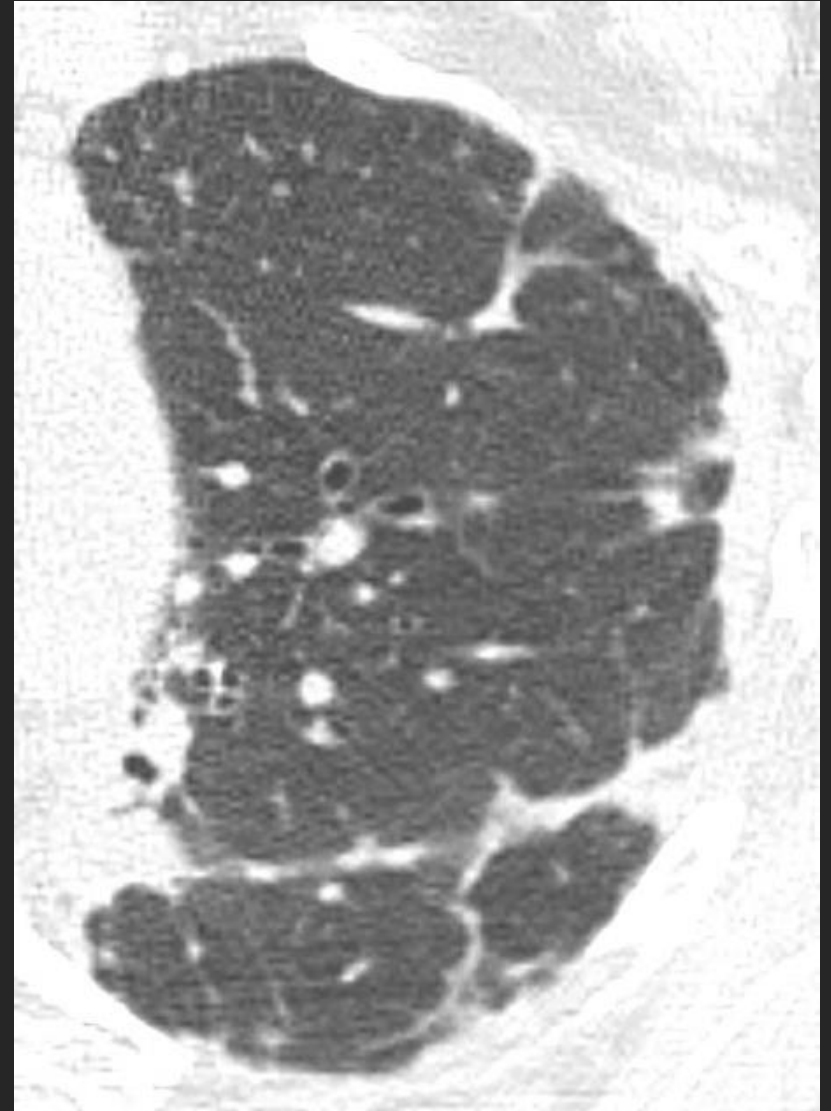
Small Opacities: “t”



Small Opacities: “u”

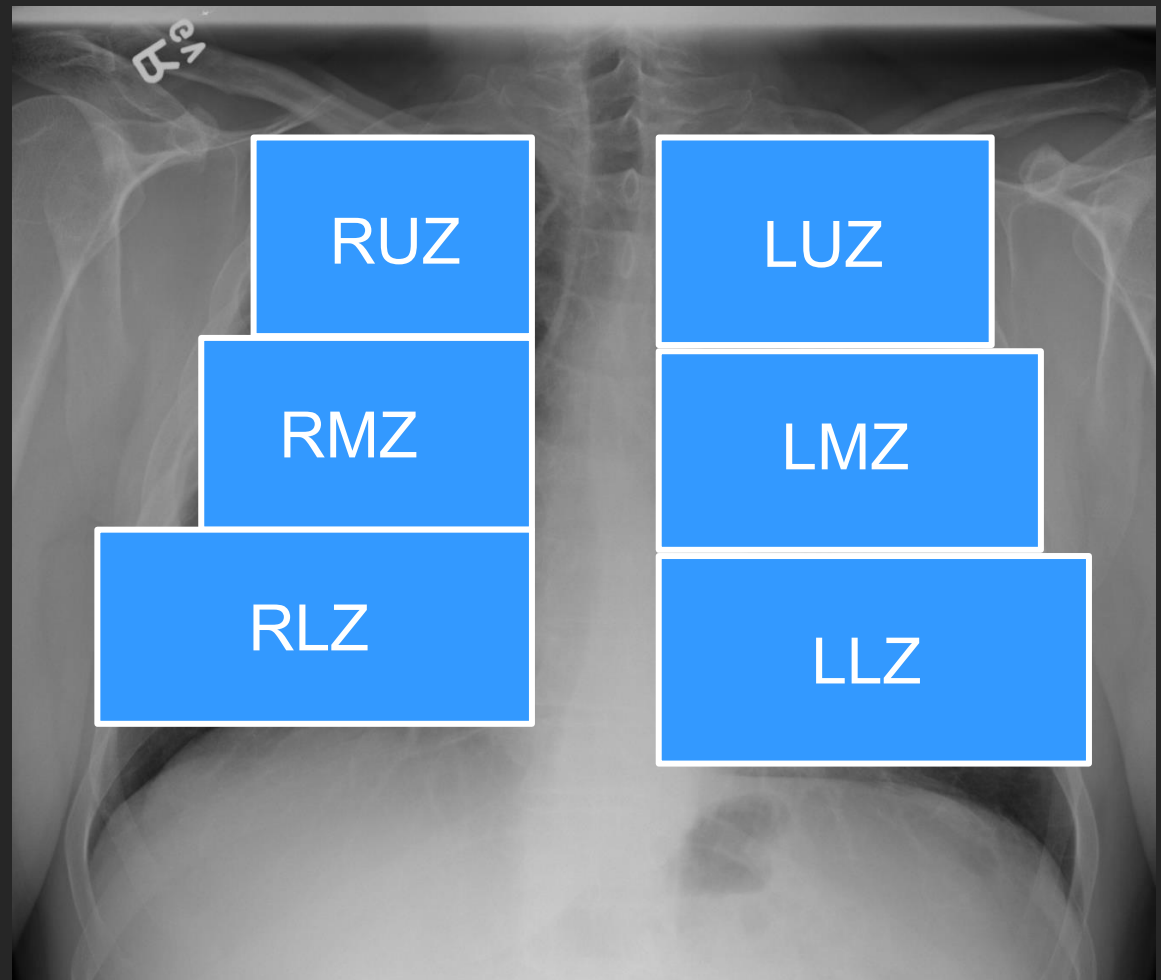


Small Opacities: “u”



Zones

	b. ZONES	
	R	L
UPPER		
MIDDLE		
LOWER		



The lungs are divided into an upper, middle and lower zone on each side by imaginary horizontal lines traversing the lungs at levels one-third and two-thirds of the vertical distance between the apices and the hemidiaphragmatic domes.

Profusion

- Profusion is the concentration of small opacities per unit area.
- Expressed in terms of four major categories: 0, 1, 2, 3.
- Spans the range from no small opacities present (0/-) to a maximal number present (3/+)

c. PROFUSION

0/-	0/0	0/1
1/0	1/1	1/2
2/1	2/2	2/3
3/2	3/3	3/+

Profusion

- Profusion is determined by visual comparison of the subject radiograph with the ILO Standards
- ILO Standards are the mid range of the four major categories: 0, 1, 2, 3
- Profusion is actually a continuum
- Each major category is divided into 3 “minor” categories creating a 12-point scale

c. PROFUSION

0/-	0/0	0/1
1/0	1/1	1/2
2/1	2/2	2/3
3/2	3/3	3/+

The Continuum

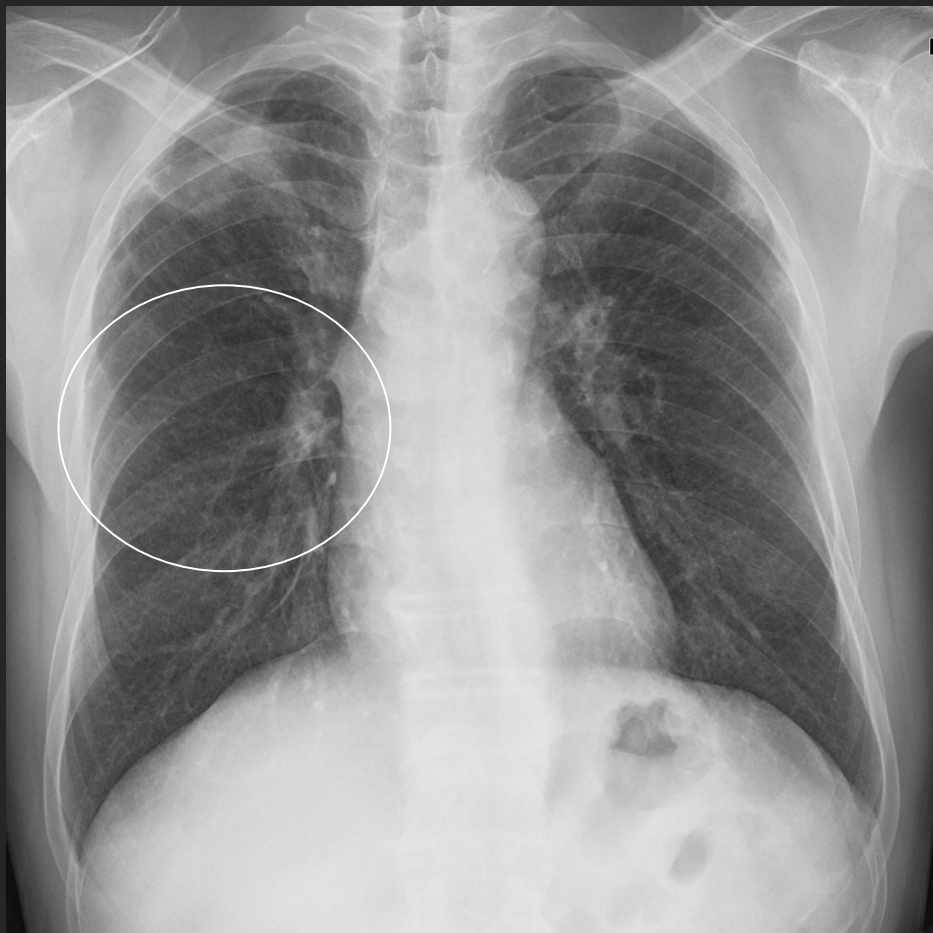
Increasing profusion of small opacities 

Categories	0			1			2			3		
Subcategories	0/–	0/0	0/1	1/0	1/1	1/2	2/1	2/2	2/3	3/2	3/3	3/+



Normal

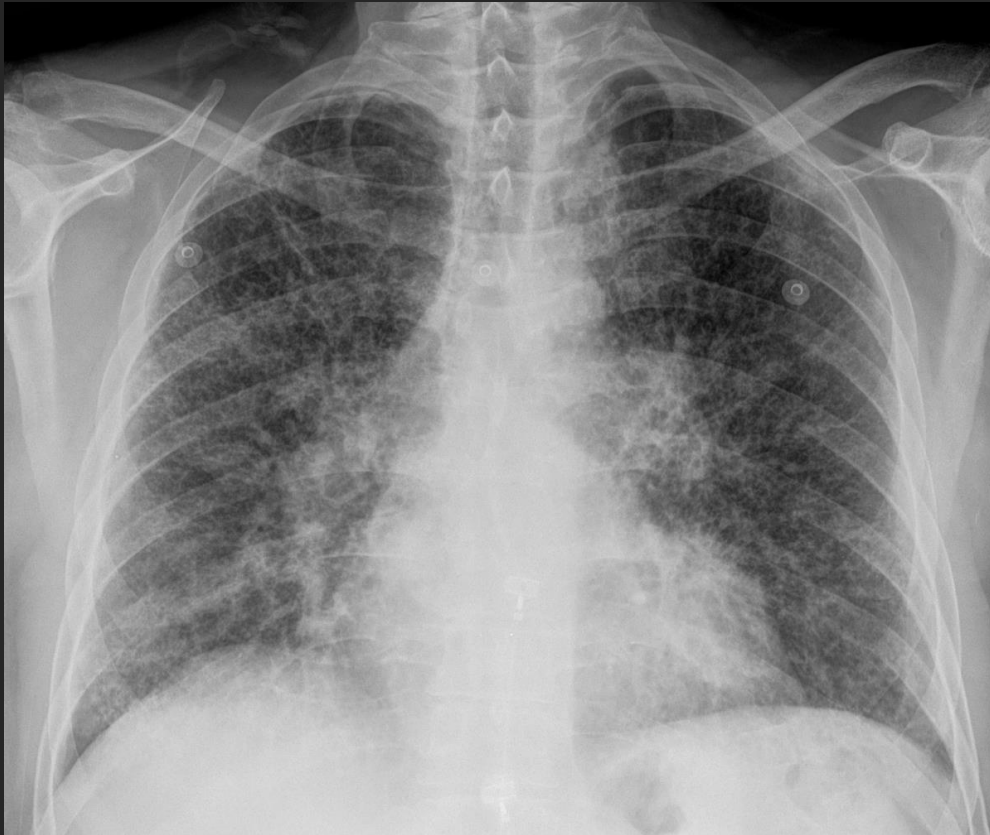




p/p 1/1



p/p 2/2



p/p 3/3

Profusion Subcategories

- Subcategories are represented by fractional symbols
- The number before the slash is the ILO Standard major category the radiograph most closely resembles
- The number after the slash is the ILO Standard major category it next most closely resembles that was seriously considered
- Thus, profusion 2/1 means it most closely resembled the ILO 2/2 Standard but that the ILO 1/1 Standard was seriously considered

Profusion Subcategories: the Extremes

- 0/- is the obvious, unequivocal absence of any small opacities (“the cold normal”)
- 0/0 a few equivocal small opacities may be present
- 3/+ is any profusion greater than the 3/3 standard



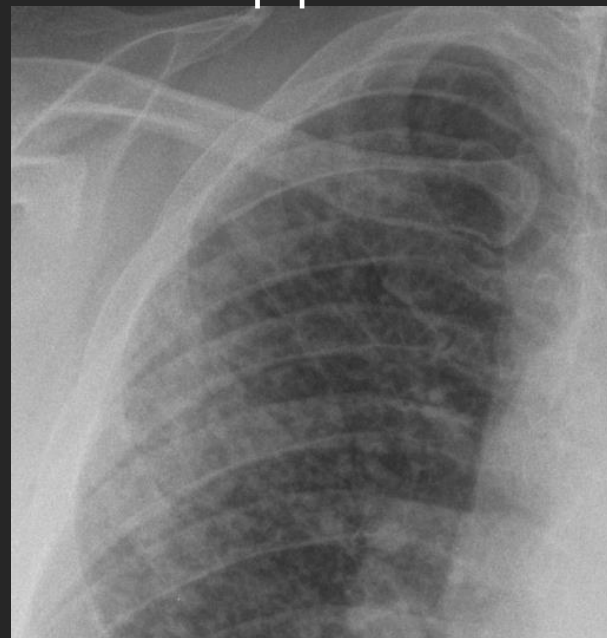
Normal



q/q 1/1



q/q 2/2



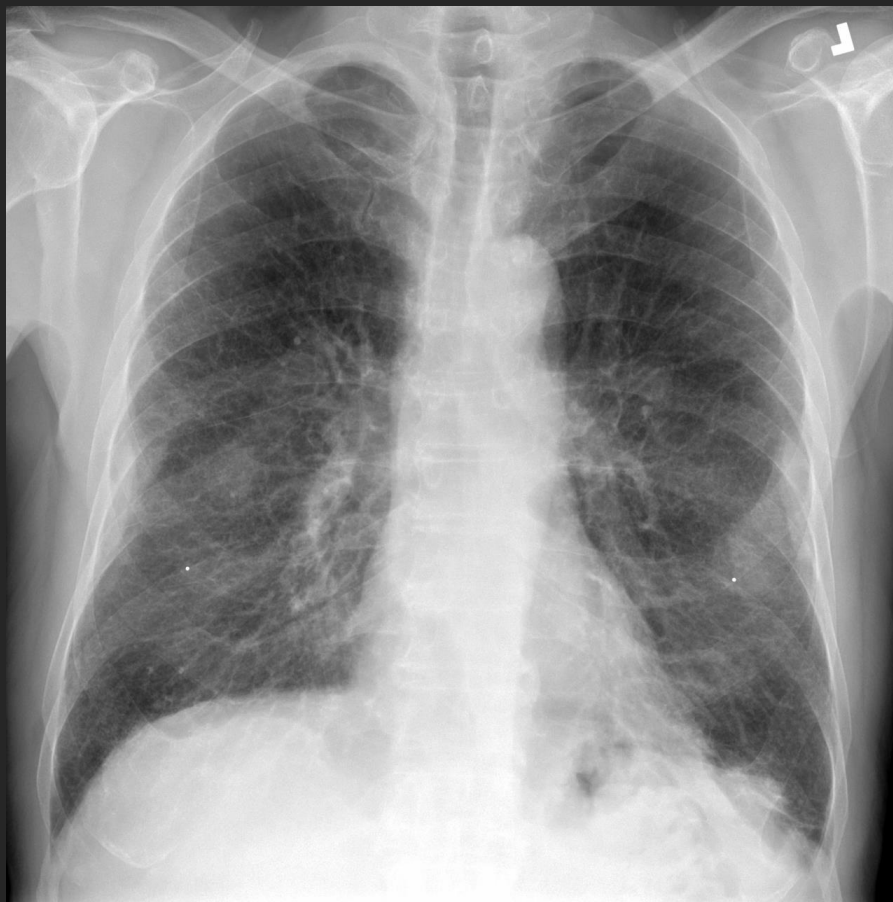
q/q 3/3



Normal



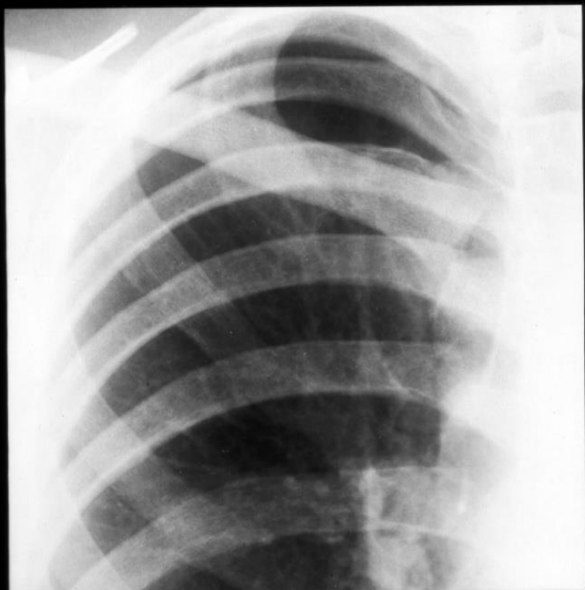
s/s 1/1



s/s 2/2



s/s 3/3



0/0



2/2 u/u



1/1 u/u



3/3 u/u

ILO International Classification of
Radiographs of Pneumoconioses



u / u
(revised 2000)



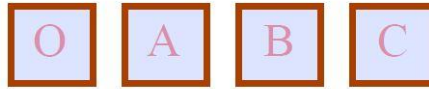
Profusion Assessment

- Assess separately for all 6 lung zones
- Include all shape/size opacities when judging profusion not just the primary type
- Estimate profusion assuming the opacities are distributed evenly in a lung zone
- Ignore lung zones that are uninvolved
- Ignore any lung zones in which the profusion is 3 or more minor categories less

Section 2C: Large Opacities

2C. LARGE OPACITIES

SIZE



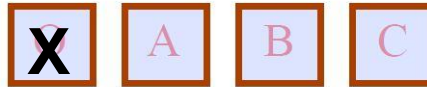
Proceed to
Section 3A

- A large opacity is one having a longest dimension greater than 10 mm

Section 2C: Large Opacities

2C. LARGE OPACITIES

SIZE



Proceed to
Section 3A

0 = no large opacity present

Section 2C: Large Opacities

2C. LARGE OPACITIES

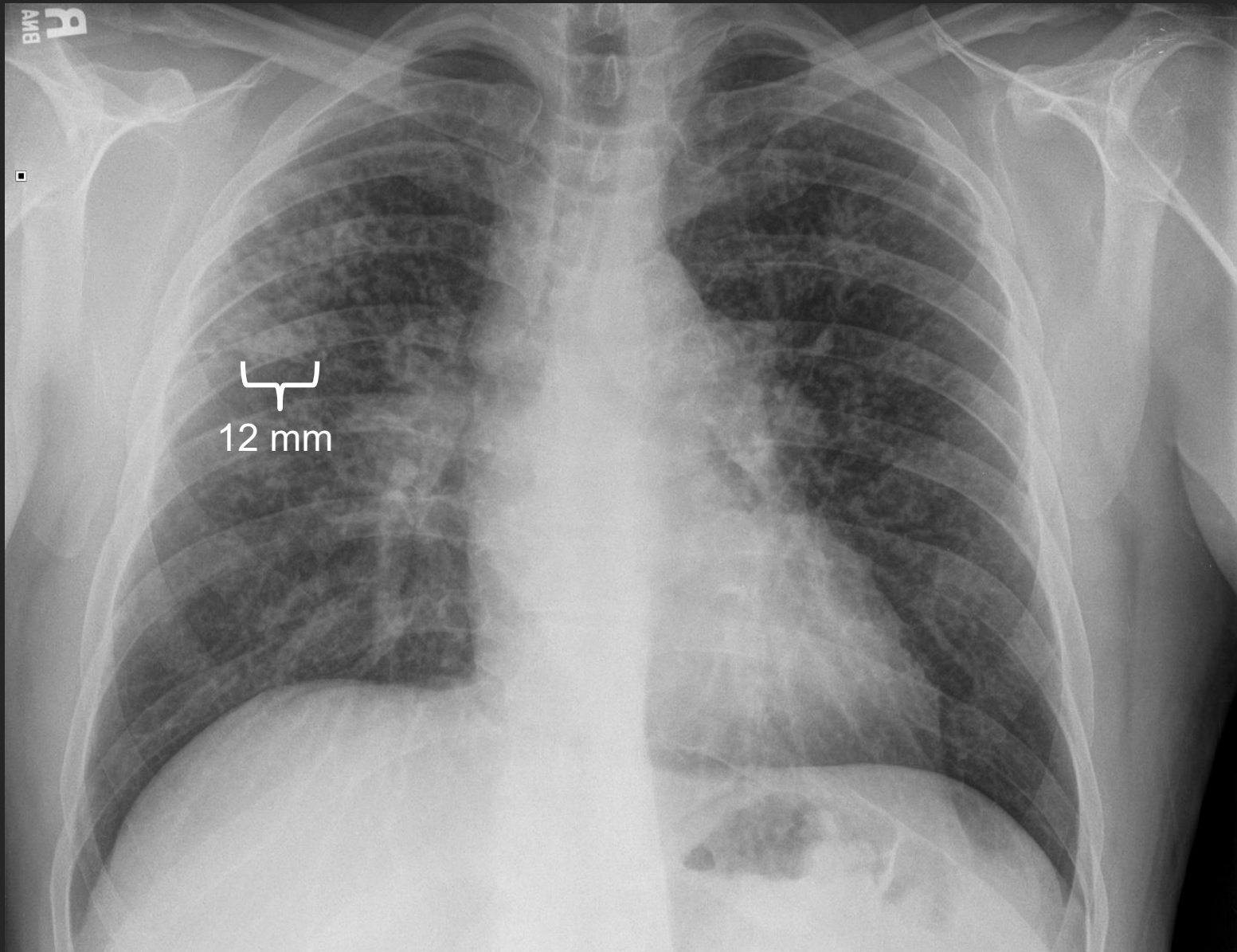
SIZE



Proceed to
Section 3A

A = an opacity whose greatest diameter exceeds 10 mm but is less than 50 mm, or several opacities each of which exceeds 10 mm in diameter but the sum of whose greatest diameters does not exceed 50 mm

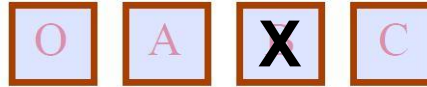
“A” Large Opacity



Section 2C: Large Opacities

2C. LARGE OPACITIES

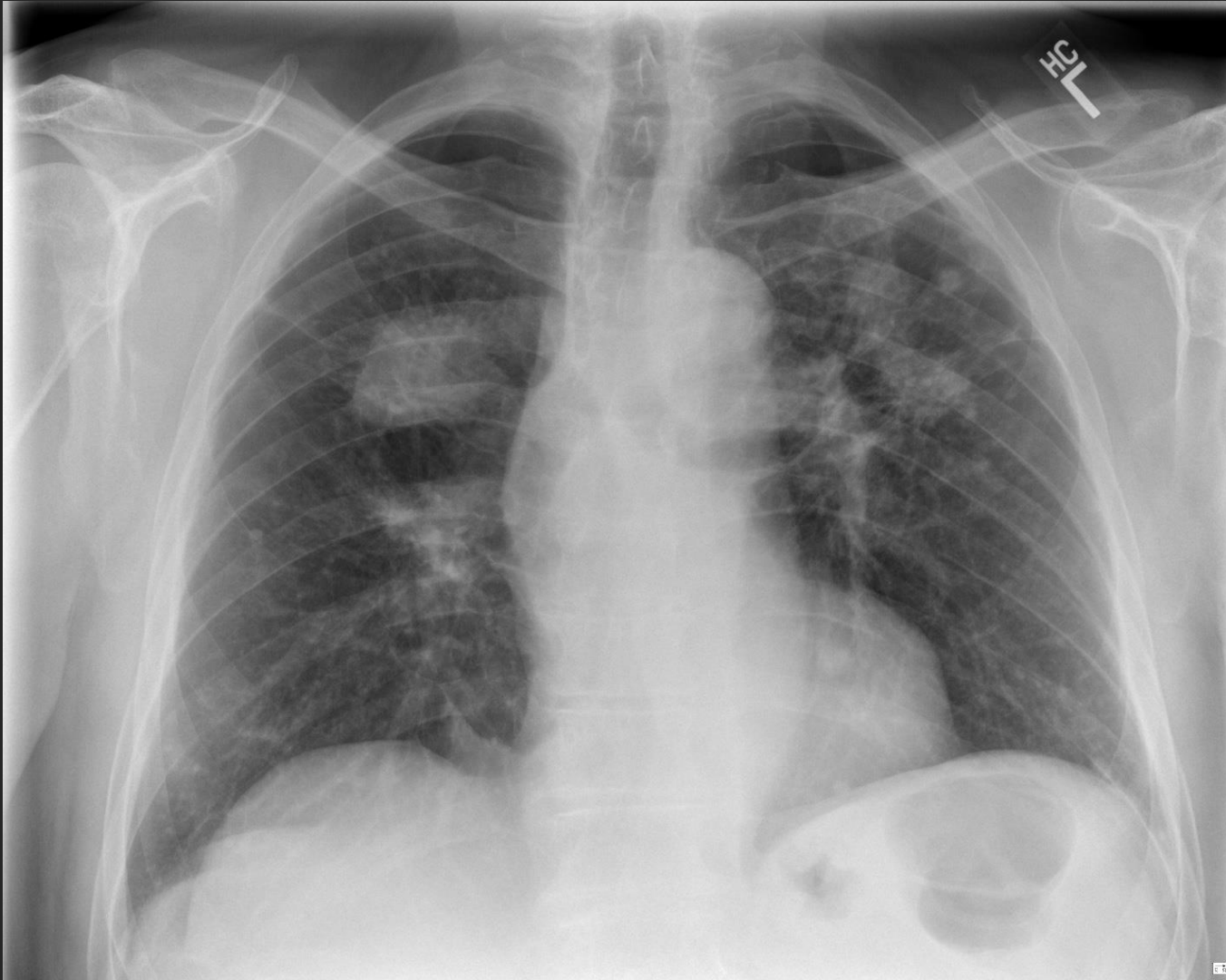
SIZE



Proceed to
Section 3A

B = a large opacity whose greatest diameter exceeds 50 mm but whose area is not greater than the area of the right upper zone, or several large opacities the sum of whose greatest diameters exceeds 50 mm in diameter but when summed do not exceed an area equivalent to that of the right upper zone.

“B” Large Opacity

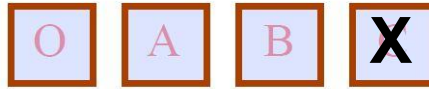


Sum of longest dimensions is greater than 5 cm but does not exceed the area of the right upper zone

Section 2C: Large Opacities

2C. LARGE OPACITIES

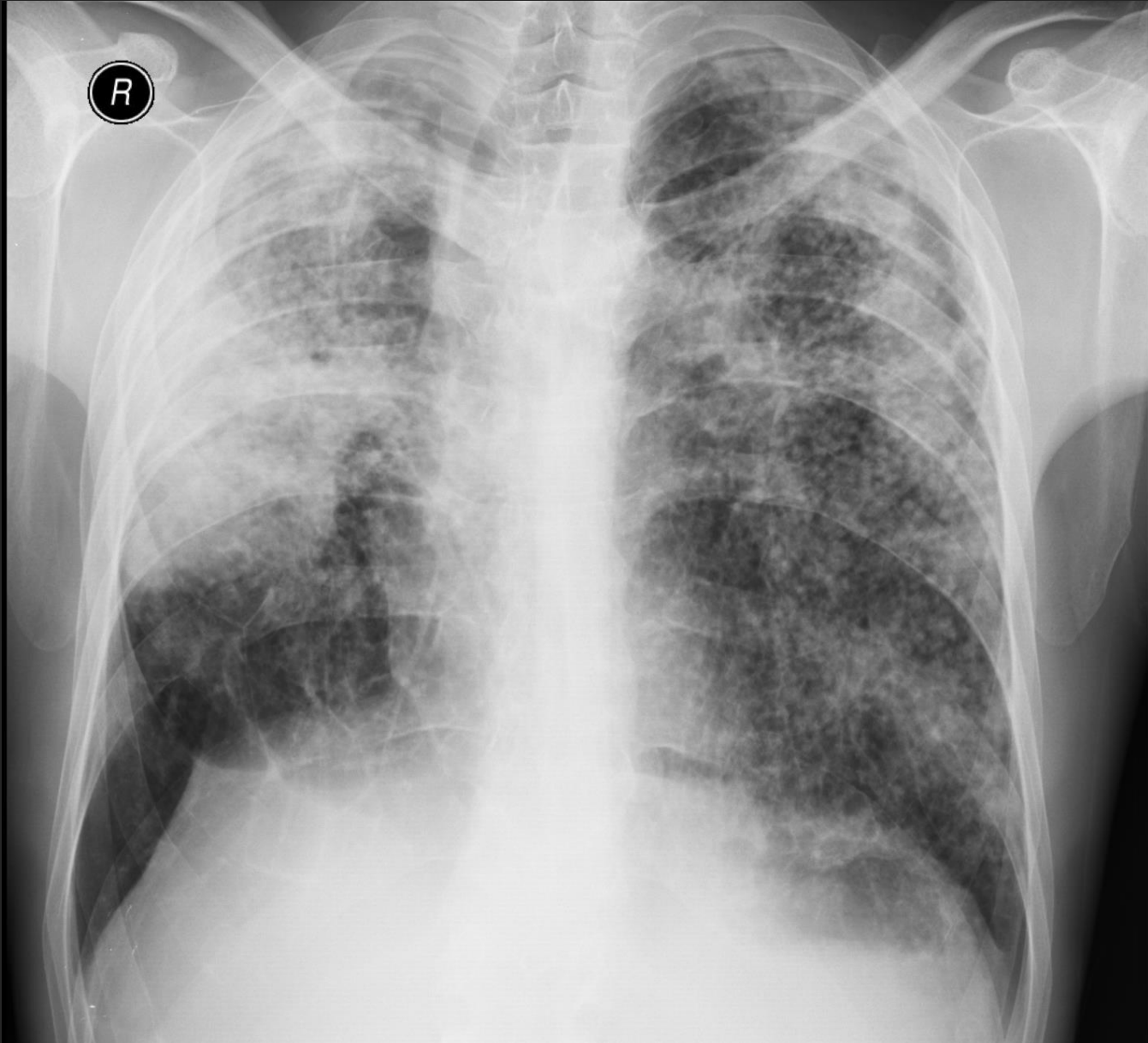
SIZE



Proceed to
Section 3A

C = a large opacity whose area exceeds that of the right upper zone, or several large opacities the sum of whose areas when summed exceed the area of the right upper zone.

“C” Large Opacity



“C” Large Opacity



“C” Large Opacity

