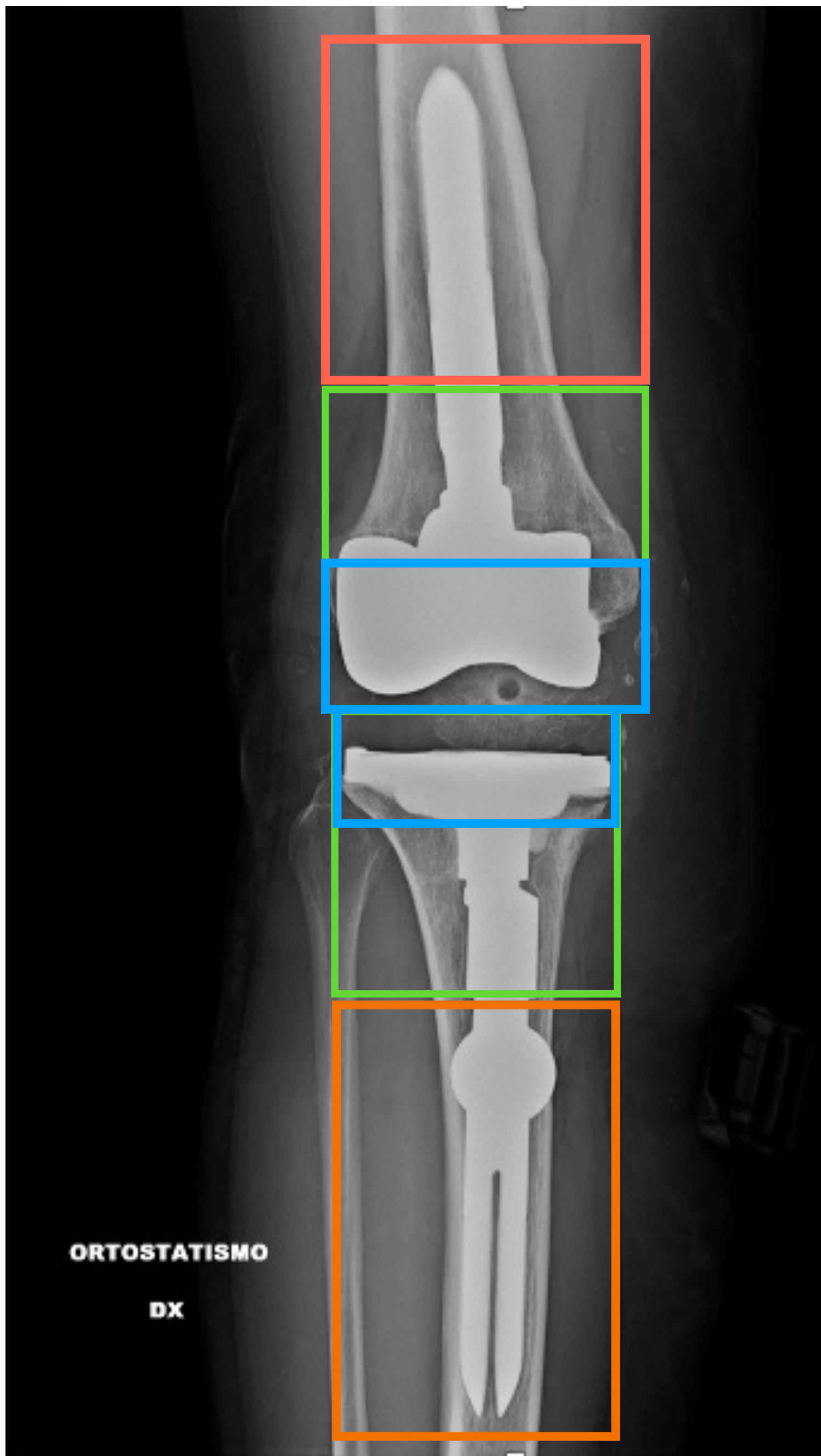


Fixation Algorithm for Revision TKA

Epiphysis	Available (AORI 1)		Cemented	0,5	
	Damaged (AORI 2)		Augment <=10mm	0,5	
			Augment > 10mm	0	
	Deficient (AORI 3)		Not applicable	0	
Metaphysis	Intact	Medullary	Cemented (good cementation)*	1	
			Cemented (bad cementation)*	0,5	
			Trabecular Metal / Sleeve	1	
	Sclerotic	Cemented	0		
		Trabecular Metal / Sleeve	1		
	Deficient		Not applicable	0	
Diaphysis	Intact or Invaded (with medullary still available for good cementation)**	Medullary		Ideal fixation	Not ideal fixation
			Smooth cemented	1	0,5
			Smooth cementless	0,5	0
			Sharp cementless	0,5	0
	Porous	1	1***		
	Invaded (not available for good cementation)**	Sclerotic	Smooth cemented	0,5	0
			Smooth cementless	0,5	0
			Sharp cementless	0,5	0
Porous			1	1***	

Definition of the zones



- Epiphysis: from the joint line to the largest part of distal femur or to the largest part of the head of the fibula
- Metaphysis: defined by “the rule of the square” (AO)

Epiphysis

Epiphysis	Available (AORI 1)		Cemented	0,5
	Damaged (AORI 2)		Augment <=10mm	0,5
			Augment > 10mm	0
	Deficient (AORI 3)		Not applicable	0

- In revision surgery, epiphysis is already “invaded”. Fixation should not be considered “ideal” (1 point not available). The presence of an augment thicker than 10mm precludes the stability of the implant

Metaphysis

Intact	Medullary	Cement (good cementation)*	1 *
		Cement (bad cementation)	0,5
	Trabecular Metal/Sleeve		1
	Sclerotic	Cement	0
Trabecular Metal/Sleeve		1	
Deficient		Not applicable	

- (*) A good cementation is obtained when:
 - at least 3 of 4 lateral interfaces (evaluated in AP and LL) are covered of cement;
 - >3mm of cement interdigitate medullary bone;
 - cement is not thicker than 6-7mm (increased risk of failure)

Diaphysis

Intact <i>or</i> Invaded (with medullary still available for good cementation)**	Medullary		Ideal fixation**	Not ideal fixation
		Smooth Cemented	1	0,5
Smooth <u>Cementless</u>	0,5	0		
Sharp <u>Cementless</u>	0,5	0		
Porous	1	1***		
Invaded (not available for good cementation)**	Sclerotic	Smooth Cemented	0,5	0
		Smooth <u>Cementless</u>	0,5	0
		Sharp <u>Cementless</u>	0,5	0
		Porous	1	1***

- (**) Ideal fixation of the diaphysial stem is obtained when:
 - the stem is cemented at least for 5cm from the end of the metaphysis
 - the cementless stem reaches cortical contact on both sides in AP or LL x-ray
- (***) Fixation of a porous stem is considered “ideal” when it’s osteointegrated; until that moment it’s evaluated like a “smooth cementless” stem