



## NM- DIAGNOSTICS

Measuring protocol for Tc-99m  
(manual injection)

### GENERAL INFORMATION (to read before starting the measurements)

These measurements are performed in the frame of ORAMED research programm. We thank you very much for your collaboration and you will be informed of the results.

1. The "hospital general information" part has to be filled only once per hospital
2. The "worker general information" part should be filled once for every worker monitored with our TLDs.
3. The "TLD positioning" should be filled once per measuring period.
4. The "Shielding Characteristics" should be filled once per measuring period.
5. The "injection" part should be filled every day.
6. All manipulations should be done with the TLD already in place.
7. All activities noted down in this protocol should be the activities at the time of

#### For Tc-99m protocol:

- The measuring period with Tc-99m is 1 week (5 working days).
- Place the TLDs in position by scotching them (the scotch should not cover the TLDs) to a first pair of gloves and use this pair of gloves every time you manipulate Tc-99m during the whole week. A second pair of gloves should be placed over the first pair to avoid contaminating the TLDs.
- Only work realised with Tc-99m should be monitored by this gloves, so if you work with any other radionuclide *do not forget to remove* the measuring gloves before.
- When removing the gloves, place them in a radiation save place.

#### IMPORTANT:

If you have any question about this protocol or the way to proceed do not hesitate to contact:

contact.name@institut.country :

Tél.:

### 1. HOSPITAL GENERAL INFORMATION (to be filled once)

Hospital name and address	
Contact person (Telephone/Fax/e-mail)	
Number of persons in the team	
Does the same person do the labelling and injection?	yes <input type="checkbox"/> no <input type="checkbox"/>

### 2. WORKER GENERAL INFORMATION (to be filled once per worker)

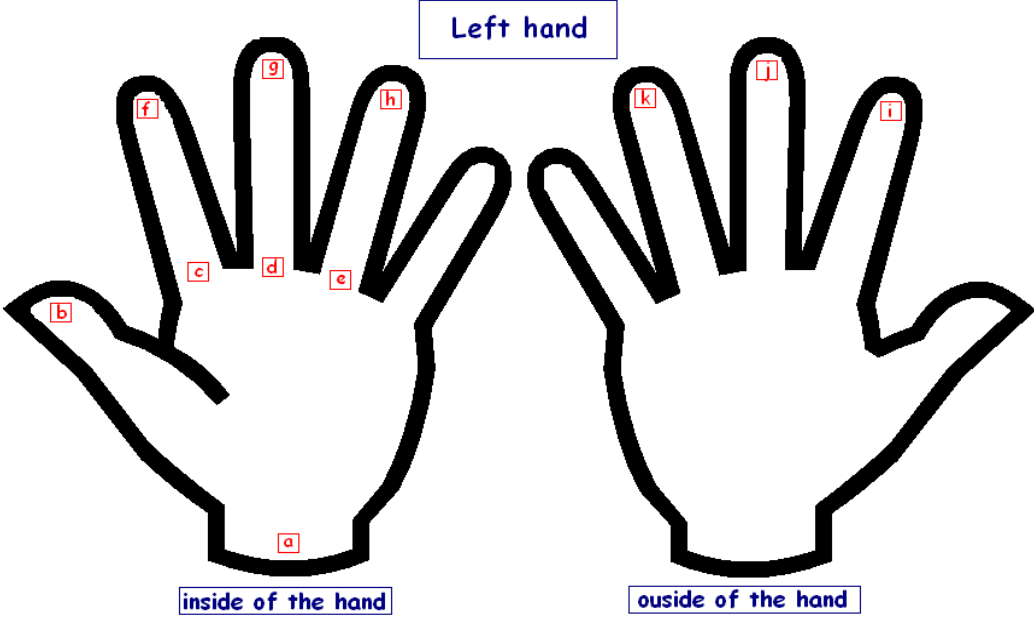
Worker name	
Worker experience	
Size and material of gloves	
Left handed <input type="checkbox"/> right handed <input type="checkbox"/>	
Describe position of hands when injecting (one hand pushes syringe and the other holds the canula)	

### 3. SHIELDING CHARACTERISTICS (Who are used during the manipulation)

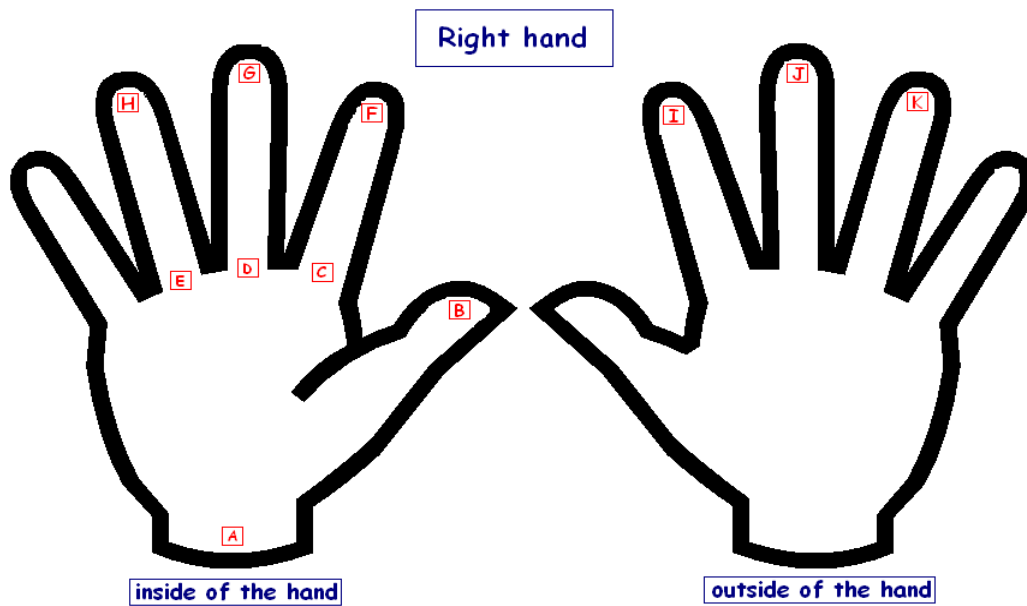
N°	TYPE SYRINGE		SHIELDING	
	Capacity [ml]	Diameter [mm]	W or Pb	mm
S1				
S2				
S3				
S4				
S5				
S6				
S7				
S8				

table 1 : type and shielding for syringe

4. TLD POSITIONNING



	TLD positions	TLD number
Inside the hand	a	
	b	
	c	
	d	
	e	
	f	
	g	
	h	
Outside the hand	i	
	j	
	k	



	TLD positions	TLD number
Inside the hand	A	
	B	
	C	
	D	
	E	
	F	
	G	
Outside the hand	H	
	I	
	J	
	K	

## 5. INJECTION

lablling name procedure

	before dose taking	after dose taking	Type Syringe (S1,S2,S3... see table 1)
shielding of seringe			

Average injection duration  sec

	volume [ml]	activities of doses <u>at the time of manipulation</u> (MBq)
dose1		
dose2		
dose3		
dose4		
dose5		

lablling name procedure

	before dose taking	after dose taking	Type Syringe (S1,S2,S3... see table 1)
shielding of seringe			

Average injection duration  sec

	volume [ml]	activities of doses <u>at the time of manipulation</u> (MBq)
dose1		
dose2		
dose3		
dose4		
dose5		

Remarks : copy the last page for other labelling and injection