

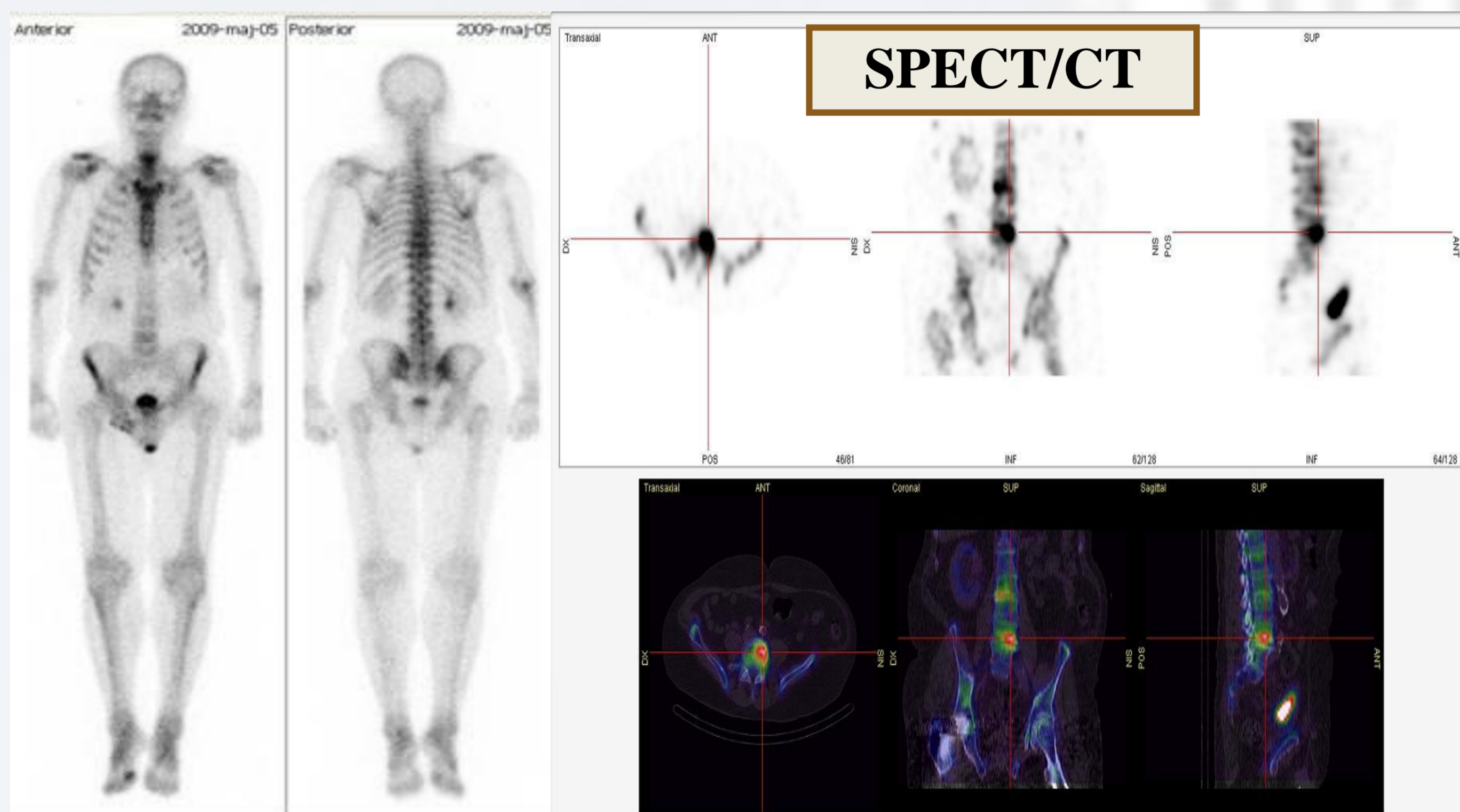
Technologists take decisions if SPECT/CT is required in addition to a whole-body bone scan

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Introduction

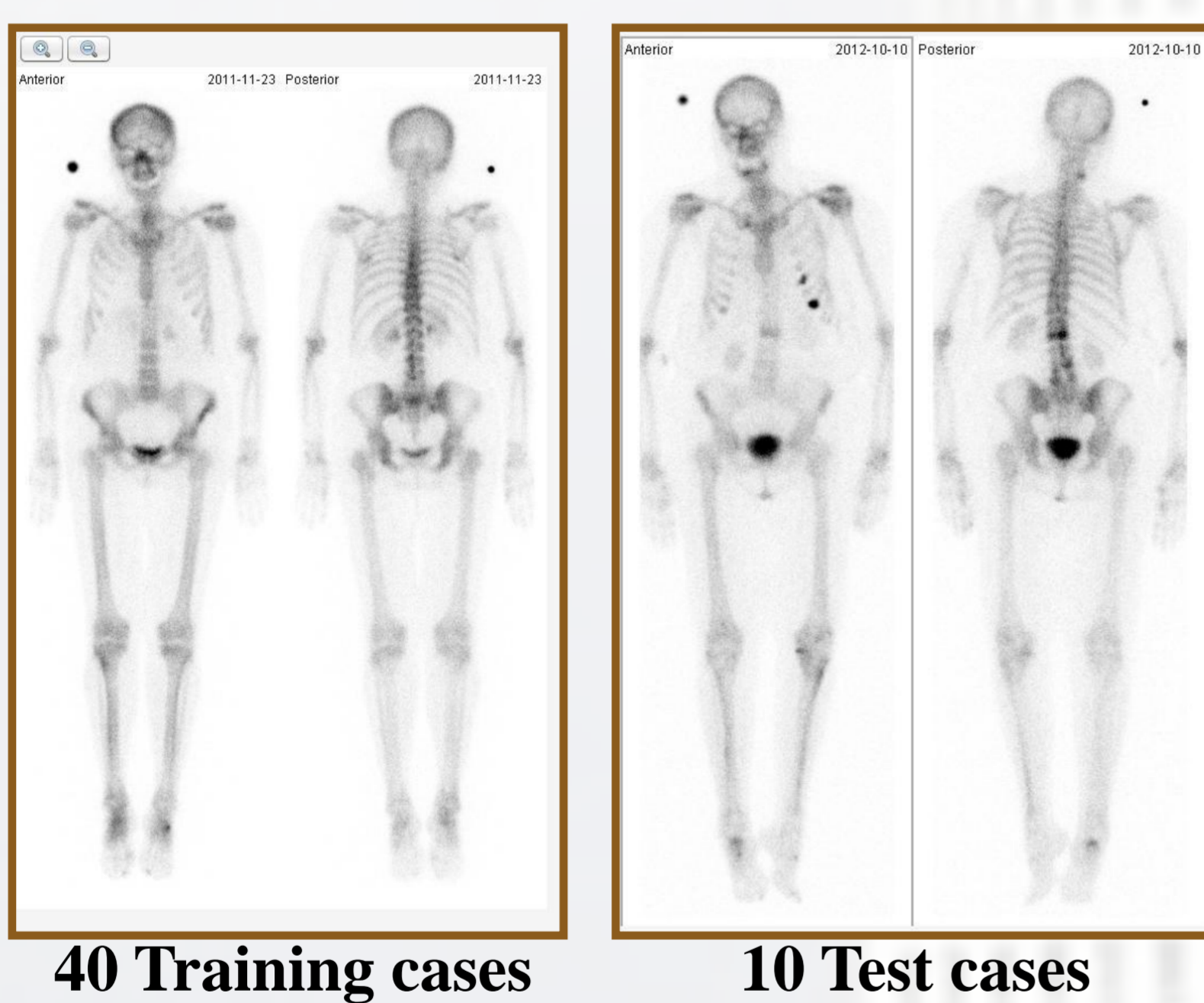
With modern gamma cameras a SPECT/CT can be added to planar whole-body bone images in order to improve the diagnostic accuracy.



New clinical routine

The technologists take the decision if a SPECT/CT is required or not, without consulting a physician in the new routine. Each technologist must first study criteria for adding a SPECT/CT and process 40 training cases and pass 10 test cases.

Criteria



Aim

The purpose of this study was to make a final evaluation of the new clinical routine before implementation.

Method

100 clinical routine whole-body bone scans with known or suspected metastatic disease.

The technologist and the physician responsible for each bone scan examination independently decided if a SPECT/CT study was required or not.

Results

Technologists and physicians agreed in 90 of 100 cases regarding SPECT/CT examination. The 10 cases with disagreement were blindly re-evaluated by the most experienced physician at our department and his decision was "SPECT/CT not required"

		Nuclear medicine technologists	
		Required	Not required
Physicians	SPECT/CT Required	63	4
	SPECT/CT Not required	6	27

Conclusion

The result shows that technologists are able to assess when a SPECT/CT examination is required without consulting a physician, after a training process based on criteria and training cases.

Technologists can always consult a physician if they are in doubt.

The new clinical routine was implemented from January 24th 2012 at our department.

New routine improves the effectiveness.

The successful outcome of this project may stimulate other departments to start similar projects in the future, involving technologists in decision making.