

“Critical alerts” in Nuclear Medicine practice – an institutional review

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Introduction

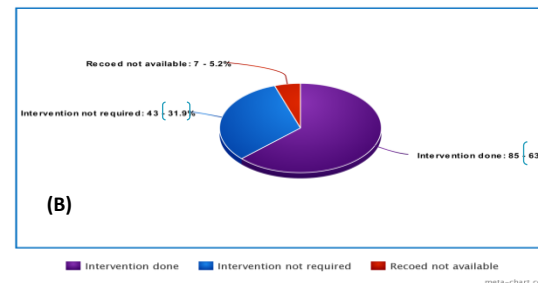
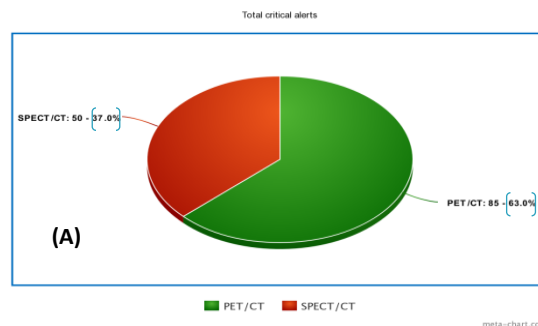
Hybrid imaging logarithmically improves the capability of scintigraphic images. Incorporation of anatomical details leads to identification of critical and unexpected findings. Timely identification and communication of ‘critical’ results to primary caregivers is mandatory for patient safety and management. Effective communication of ‘critical’ results of diagnostic imaging procedures is an international patient safety goal (IPSG) proposed by Joint Commission and other quality programs.

Objective

Our hospital has developed an effective methodology for identification and communication of critical results of diagnostic imaging procedures. The objective of the study is to review the critical alerts generated by the Nuclear Medicine department.

Methods

Hospital’s electronic hospital information system was used to retrospectively review the critical alerts generated by the department of Nuclear medicine from December 2017 till Jan 2021.



Results

- ❖ Total number of critical alerts = 135
- ❖ PET/CT critical alerts = 85 (63%) [fig. A]
- ❖ SPECT/CT = 50 (37%) [fig. A]
 - Bone scans = 44
 - Renal scans = 02
 - Cardiac SPECT/CT = 01
 - GIT bleeding scan = 01
 - V/Q scan = 01
 - Sentinel lymph node scintigraphy = 01
- ❖ Baseline scans = 79
- ❖ Follow-up = 56
- ❖ Most common finding = Spinal cord compression
- ❖ Intervention done after alert = 85 (63%) [fig. B]
- ❖ Intervention not required = 43 (32%)
- ❖ Record not available = 7 (5%)

Conclusion

Hybrid scintigraphy necessitates Nuclear Medicine departments to develop skills and mechanisms for timely recognition and communication of critical findings to referring clinicians for optimal patient management and safety.