

Conclusion

We have developed and tested a protocol to quantify the image quality of coincidence cameras using images that also yield valuable intuitive information by visual assessment.

The results have yielded valuable quantitative information about:

attenuation correction

measured maps are good

correction to projections are very good

randoms correction

delayed-window is better than model-based corrections

crystal thickness

more is better

This type of study can be improved by automating the ROI determinations, adopting a "standard PET phantom" (e.g. NEMA, COST- B2) and convincing manufacturers there is something to be learned from the results.

For more information:

zimmer@bwh.harvard.edu