



Effective Health Care

Bioluminescent Imaging Nomination Summary Document

Results of Topic Selection Process & Next Steps

- Bioluminescent imaging does not fit within the domain of the Effective Health Care (EHC) Program because the technology is still under development. No further activity will be undertaken on this topic.

Topic Description

Nominator: Individual

Nomination Summary: The nominator suggests that a technique called bioluminescent imaging would help surgeons visualize bile ducts, vessel repair, cancer laden lymph nodes, and tumor margins instantly without x-ray exposure and could be used for rapid melanoma detection. The nominator also questions the toxicity of the compounds used in bioluminescent imaging.

Key Questions from Nominator:

1. What anatomy can be visualized in detail using bioluminescent techniques vs. iodine contrast agents?
2. What is the absorption, distribution, metabolism, excretion of coelenterazine in mammals?
3. What are the carcinogenic risks related to coelenterazine?

Considerations

- The topic does not meet EHC Program appropriateness criteria. (For more information, see <http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/>.)
- A literature scan identified no articles relating to the application of this technology in surgery. Only articles relating to animal models and gene expression profiling were identified.