

Molecular fluorescence-guided surgery

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Intraoperative imaging technologies, specifically 5-ALA and iMRI, may be of benefit in maximising extent of resection in participants with high-grade glioma. However, this is based on low- to very low-certainty evidence. Therefore, the short- and long-term neurological effects are uncertain. Effects of image-guided surgery on overall survival, progression-free survival, and quality of life are unclear. Network and traditional meta-analyses were not possible due to the identified high risk of bias, heterogeneity, and small trials included in this review. A brief economic commentary found limited economic evidence for the equivocal use of iMRI compared with conventional surgery. In terms of costs, one non-systematic review of economic studies suggested that, compared with standard surgery, use of image-guided surgery has an uncertain effect on costs and that 5-ALA was more costly. Further research, including completion of ongoing trials of ultrasound-guided surgery, is needed. ¹⁾.

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