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Exploring the Feasibility of Cataract Surgery without Routine Monitored Anesthesia Care: Insights from Anesthesiologists



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BACKGROUND

Cataract surgery in the U.S. is usually performed with monitored anesthesia care (MAC), consisting of one-to-one intraoperative monitoring and sedation administered by an anesthesiologist or nurse anesthetist. Given the safety and efficacy of cataract surgery, the projected increase in cataract surgery demand as the U.S. population ages, and the cost burden to Medicare, stakeholders including policymakers, clinicians, and payers have questioned the continued routine use of one-to-one MAC for cataract surgery.

AIM

Explore anesthesiologist perceptions regarding the possibility and feasibility of de-implementing routine MAC use in cataract surgery in the U.S.

METHODS

Semi-structured virtual interviews with practicing anesthesiologists were conducted utilizing an interview guide created based on the CFIR framework. Interviews were transcribed and analyzed in Atlas TI. Data was analyzed using an inductive thematic analysis approach and the codebook was refined throughout the interview process to reflect emerging themes. Two independent coders coded each transcript and any disagreements in coding were resolved by consensus.

RESULTS

6 anesthesiologists have been interviewed to date. Qualitative analyses identified two major themes relating to potential de-implementation of MAC use in cataract surgery: barriers to change and facilitators of change. Subthemes of barriers to change included: concerns for patient safety, patient factors and comorbidities, and financial implications (Table 1). Subthemes of facilitators of change included: potential for improved anesthesia resource allocation and utilization, cataract surgery’s low risk profile, and prior exposure to other low-risk procedures that do not utilize MAC (Table 2). There was a divide in anesthesiologist opinions regarding the effect on overall efficiency following MAC de-implementation in cataract surgery.

DISCUSSION

Our preliminary data reveals a variety of opinions on routine MAC use in cataract surgery and the feasibility of reducing routine MAC use in these procedures. With other countries safely performing cataract surgery without routine MAC and other similarly low-risk procedures in the U.S. being completed without routine MAC, it may be feasible to consider a more selective approach to MAC use in cataract surgery. However, our qualitative data shows that there are several potential barriers that need to be addressed before the approach to cataract sedation undergoes any significant change in the U.S. Our findings will directly inform future resource allocation decisions and practice considerations for cataract surgery.

Table 1: Barriers to Change

Barriers to Change	Illustrative Quote
Concerns for patient safety	“The concern would be that if a patient was really uncomfortable [and] moving around too much that you would have to convert them [to general anesthesia]. Especially if someone does enough of these, they probably have had to do something where the patient gets super anxious and is jumping off the table practically, then they'd have to do that.” “I'm sure there are technical risks related to the patient moving at the wrong time or that sort of thing. That would be the ophthalmologist's argument for continuing to have anesthesia present is they can more reliably make sure the patient is going to stay still.”
Patient factors and comorbidities	“Anyone with any comorbidities [needs to have MAC during cataract surgery]. Like cardiac and pulmonary comorbidities...if someone has pulmonary hypertension, right, you don't really want the sedation nurse or someone circulating or ophthalmologist giving Fentanyl... Someone with significant heart disease. Someone with anxiety out of control... pediatric patients, pregnant patients.” “I think that probably the greatest risk for most patients is their comorbidities. It's what the patient brings to the table, and if they choose to have a heart attack at that moment or an exacerbation of their heart failure or whatever, that's what probably constitutes the greatest risk.”
Financial implications	“The concern is that Medicare will decide to bundle the anesthesia portion of cataract surgery into the cataract surgery itself and reduce compensation further which they continuously do for cataract surgery now anyway.” “I think you might get some people who are against it because if insurance reimburses it it's good money, but if they don't reimburse it people are not going to staff it for no reason, right?”

Table 2: Facilitators of Change

Facilitators of Change	Illustrative Quote
Potential for improved anesthesia resource allocation and utilization	“I will tell you honestly, we are confronting a huge workforce problem in the United States right now. There's way more work than there are anesthesiologists, and I honestly believe we are going to have to give back some work. Cataracts are at the top of my list at the moment as things I think could be done perfectly well without us, or 99% of them could be done without us.” “There's limited anesthesia staff hours available. And there's a huge backlog of cataract surgery that needs to be done. I think if you're selective in terms of healthy, ASA1s and 2s, not anxious, motivated, I think you should do them under nothing, like not even give any sedation or Fentanyl. Just do it under topical [anesthesia].”
Cataract surgery’s low risk profile	“If the patient can survive a haircut, they can have their cataract done.” “Honestly, I think the procedure's pretty safe. You may have some complications, but there's nothing – other than drug allergies – I don't think there is anything that's significantly worrisome.”
Prior exposure to procedures not utilizing MAC	“I've seen that – as long as you give good local topical anesthetic – you can do a lot of different things that you wouldn't need to have anesthesia there.” “In the UK, 98% of their cataracts have no anesthesia personnel... The ophthalmologist is supervising, and they have a sedation nurse... helping them.”

