

Citation

Domino KB: Trends in anesthesia litigation in the 1990's: Monitored anesthesia care claims. *ASA Newsletter* 61(6): 15-17, 1997.

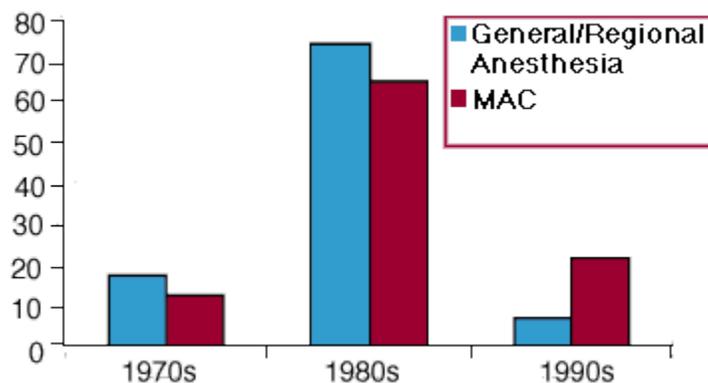
Full Text

As every anesthesiologist knows, monitored anesthesia care (MAC) sometimes presents great challenges and difficulties. However, health plan administrators, in their zeal for cost-containment, have questioned whether MAC by anesthesiologists is truly medically necessary.

Do patients undergoing intraoperative care with MAC face risks that demand the attention of an anesthesiologist, or can the care of these patients be relegated to the surgeon and operating room nurse? In order to address the risk of MAC for the patient and liability for the anesthesiologist, we examined the ASA Closed Claims Project database of closed anesthesia malpractice claims. Approximately 2 percent of the 3,791 closed anesthesia malpractice claims in the database to date involve MAC, compared to 71 percent of claims involving general anesthesia and 27 percent of claims involving regional anesthesia. We compared the risk and liability profiles for injuries occurring during MAC to those associated with general and regional anesthesia. It is important to remember that the data represent analysis of closed malpractice claims and do not provide overall incidence statistics for injuries during MAC.

During the 1990s, litigation for injuries arising during MAC has become more common. Claims for injuries during MAC (n=83) represent 1.6 percent of claims in the 1970s, 1.9 percent of the claims in the 1980s and 6.0 percent of claims in the 1990s in the ASA Closed Claims database. Eighteen percent of MAC claims were from the 1990s, compared to 8 percent of the other (general and regional) anesthesia claims ($p < 0.001$) [Figure 1].

Figure 1



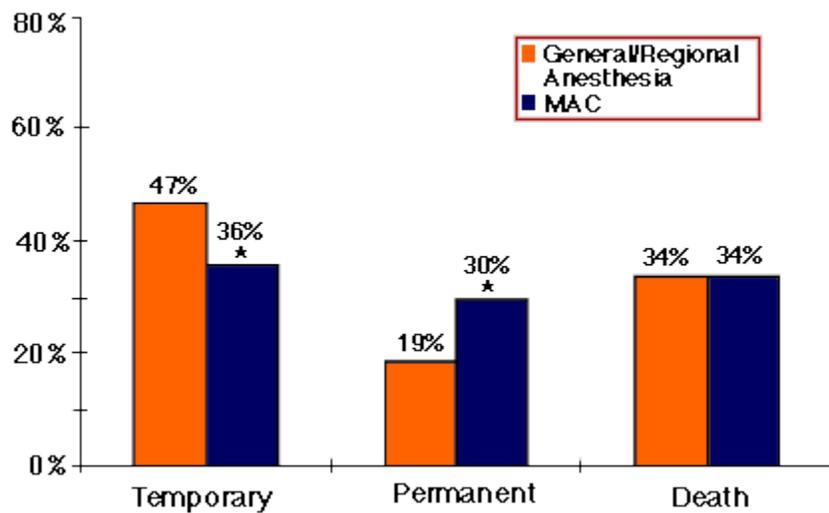
Proportion of claims for MAC that occurred in each decade versus proportion of claims for general or regional anesthesia over the same time periods. n=3,791.

In contrast, only 13 percent of MAC claims were from the 1970s, compared to 18 percent of the rest of the anesthesia claims. These trends suggest that the present-day practitioner

might face an increased risk for litigation from MAC in future years, despite the use of pulse oximetry and other respiratory monitors.

Do outcomes of significant severity occur in MAC cases? The answer is an unqualified "yes," as most claims for MAC involved severe injuries. In fact, there was a greater proportion of permanent injuries (30 percent) and a lower proportion of temporary injuries (36 percent) than in general/regional anesthesia claims ($p < 0.05$) [Figure 2]. However, the proportion of death during MAC was similar to other anesthesia claims (34 percent.) Compared to other types of anesthesia, the adverse outcomes from MAC included similar proportions of death (34 percent), higher proportions of brain damage (19 percent versus 12 percent for general/regional anesthesia) and lower proportions of nerve damage (7 percent versus 16 percent for general/regional anesthesia).

Figure 2



Proportion of claims for MAC that resulted in temporary or permanent injury of death versus proportion of general or regional anesthesia claims for similar severity of injuries. $n = 3,791$.

Other common adverse outcomes following or during MAC included eye damage, stroke, burn, gastric aspiration and emotional distress or fright.

Table 1

Outcome of Injury From MAC Claims (n=83)		
	n	percent
Death	28	34
Brain damage	16	19
Nerve damage	6	7
Eye damage	10	12
Prolonged ventilatory support	4	5
Myocardial infarction	3	4
Stroke	3	4
Burn	3	4
Emotional distress/fright	3	4
Aspiration	3	4

The potential for severe injury suggests that patients undergoing MAC do face risks that demand the attention of an anesthesiologist.

What is the risk profile for litigation for injuries arising under MAC? Are there patterns for the type of patient and type of procedure at risk for injury? The ASA Closed Claims database suggests that patients who had injuries during MAC were older and sicker than those who had injuries during other types of anesthesia. Twenty-five percent of claims for MAC involved patients who were 70 years old and older, compared to only 7 percent of claims for injuries during general/regional anesthesia ($p < 0.001$.) Forty-nine percent of MAC claims involved sicker patients with ASA physical status 3-5, compared to only 29 percent of malpractice claims associated with general/regional anesthesia ($p < 0.001$.)

There was no difference in gender of patients with claims for MAC compared to the other types of anesthesia (60 percent female). A greater proportion of the procedures during MAC were performed on an outpatient basis (55 percent compared to 19 percent of general/regional anesthesia claims, $p < 0.001$). These data suggest that significant patient injury can occur during MAC especially in the elderly, chronically ill patient, even when undergoing minor surgery performed as an outpatient.

What is the cause or mechanism of the adverse outcomes during MAC? The cause or mechanism of the adverse outcome in the closed claims for MAC was respiratory in 26 percent and cardiovascular in 10 percent, which is similar to other anesthesia claims.

Table 2

Common Primary Damaging Events From MAC Claims (n=83)		
	n	percent
Respiratory event	22	26
Cardiovascular event	8	10
Intravenous complications	6	7
Other equipment	8	10
Patient moved	8	10
Wrong dose or drug	7	8
Allergic reaction	2	3
None/unknown damaging event	19	23

Most respiratory damaging events were due to inadequate oxygenation and/or ventilation. Frequent other damaging events were intravenous problems, burns and equipment problems, patient movement (especially when disoriented during eye surgery), and wrong doses or drugs, which were all more common than during general/regional anesthesia malpractice claims. Allergic reactions, while infrequent during MAC, resulted in high payments. Fewer MAC claims were evaluated as having no or an unknown damaging event than were the other types of anesthesia claims.

What is the liability profile of claims for injuries during MAC? What patterns emerge from the ASA Closed Claims database relating to standard of care and preventability of the injury? The standard of care was judged to be appropriate in nearly half of the MAC claims, similar to claims for general/regional anesthesia. Care was judged to be less than appropriate in 42 percent of MAC claims, also a similar percentage as with claims from other types of anesthesia. Approximately one-third of the MAC claims would have been prevented by better monitoring, especially pulse oximetry. These claims arose in the 1970s and 1980s before pulse oximetry became a standard of care.

Better monitoring would not have prevented most injuries associated with MAC in the 1990s. Reviewers were more able to say whether the injury for claims involving MAC was preventable or not, than for claims involving general/regional anesthesia. A greater percentage of inquiries were rated as both preventable and nonpreventable during MAC anesthesia, than during general/regional anesthesia in which the reviewer was more frequently unable to decide on the preventability of the injury ($p < 0.01$).

What patterns emerge from the ASA Closed Claims database regarding the frequency of payment and amount of payment to the plaintiff in MAC claims? Lawsuits were filed in 90 percent of MAC claims, with most (65 percent) resulting in a settlement, 20 percent with a judgment by trial and 15 percent dropped or discontinued. For the subsequent analysis of

payments, claims for general and regional anesthesia were compared separately to MAC claims. A similar proportion of claims resulted in payment to the plaintiff in MAC and general anesthesia claims (60 percent,) compared to a lower proportion of payments in regional anesthesia claims (47 percent) [Table 3].

Table 3

Payments From MAC Versus General and Regional Anesthesia Claims			
	General Anesthesia	MAC*	Regional Anesthesia*
N (group)	2,699	83	1,009
Minimum	\$15	\$2,000	\$134
Maximum	\$23,200,000	\$6,300,000	\$6,800,000
Median	\$110,000	\$75,000	\$75,000
N (payments)	1,641	50	476
<i>*p<0.001 compared to general anesthesia</i>			

Payments for MAC claims ranged from \$2,000 to \$6.3 million, excluding legal costs. The median payment (\$75,000) for MAC claims was lower than for general anesthesia claims (\$110,000) but similar to payments for claims associated with regional anesthesia ($p<0.001$) [Table 3].

There were, however, six MAC claims with payments in excess of \$1 million occurring between 1979 and 1987. These cases represented younger patients (12-47 years) who sustained severe injuries (brain damage or death). The damaging event was respiratory in three cases, cardiac in one case and an allergic reaction in two cases. It is clear from these figures that injuries during MAC may result in a high payment to the plaintiff and pose significant liability for the anesthesiologist.

In summary, data from the ASA Closed Claims database suggest that MAC poses significant risk for the patient, especially for elderly and chronically ill patients. Injuries during MAC were severe, with a high portion of death (34 percent) and brain damage (19 percent). Eye injuries, especially due to patient movement, were common (12 percent.) MAC also poses a significant liability for the anesthesiologist in that payments to the plaintiff were high, despite the fact that the patients were older and sicker than patients undergoing general or regional anesthesia.

Litigation from adverse outcomes during MAC appears to be increasing in the 1990s, despite the use of pulse oximetry and other respiratory monitoring. The ASA Closed Claims Project data therefore supports the belief that patients undergoing intraoperative care with MAC do face risks that demand the attention of an anesthesiologist.

The opinions expressed herein are those of the author and do not necessarily represent the policy of the American Society of Anesthesiologists.

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