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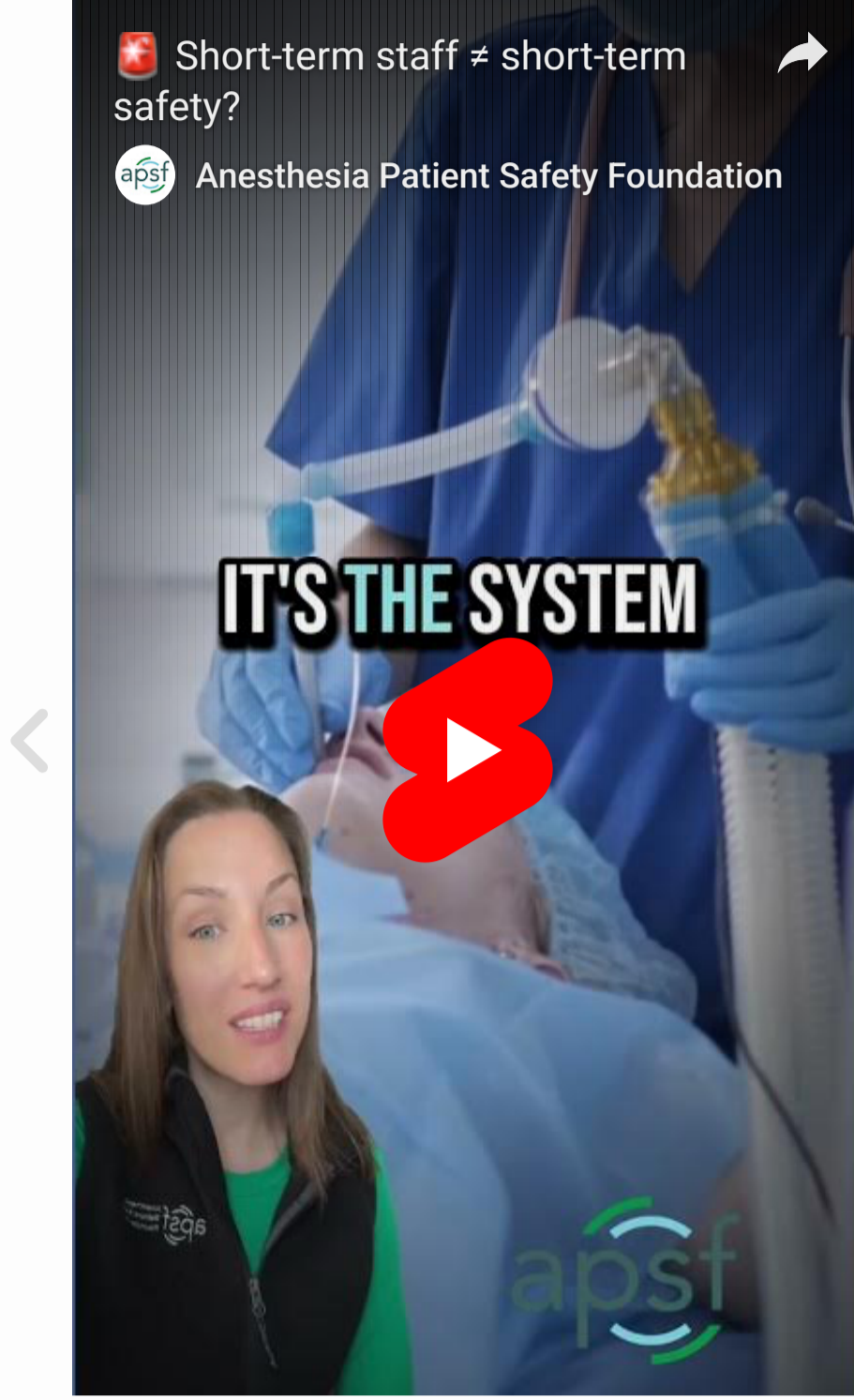
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Patient Safety with a Transient Workforce: Navigating the Terrain of a Locum Tenens-Driven World

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Ensuring patient safety is critical to successful perioperative care. Even in the best of conditions, however, it is challenging to maintain systems and processes that ensure the highest quality care. Leaders in anesthesia often also face the difficulty of implementing complex policies and procedures with a workforce suffering from frequent turnover and change. Ongoing staffing shortages across the United States necessitate the utilization of anesthesiology professionals on a per diem or locum tenens basis to ensure adequate availability of anesthetic care. Temporary workforce staff helps avoid lapses in care that may be caused by attrition, retirement, and expansion.



Locum tenens are short-term healthcare professionals typically used to cover for clinicians on leave, during periods of high demand, or in areas facing clinician shortages.¹ According to a 2022 survey by AMN Healthcare, 88% of healthcare facility managers surveyed used locum tenens physicians.² In addition, 28% of those surveyed used locum tenens anesthesiologists or certified registered nurse anesthetists within the prior twelve months.

The use of locum tenens clinicians has both advantages and challenges. Locum tenens clinicians help ensure that services remain available, especially in underserved or rural areas, by filling gaps during clinician shortages or when regular staff are unavailable.² Alleviating the workload of permanent staff may reduce the risk of overwork and related errors, although locum tenens professionals may not know a hospital's specific protocols, potentially leading to communication errors or mismanagement. The temporary nature of locum tenens clinicians can also lead to variability in the quality of care, depending on the individual clinician's experience and integration into the team.¹ With the frequent changes in care teams, there may be disruptions in established workflows and communication, potentially affecting patient outcomes. For example, a locum tenens anesthesia professional may not know who to contact for additional help during emergent situations. Locum tenens clinicians may pose challenges to patient safety due to variations in clinical governance, inconsistencies with team integration, and lack of familiarity with institutional practices.¹

Patient safety and quality improvement programs require a combination of policies, procedures, education, quality measures and evaluations for maximal efficacy. Full time staff often receive lengthy orientations and ongoing education via in-person reinforcement, mandatory training sessions, grand rounds and didactics. Quality measures may be tracked for individuals, and evaluations are often conducted routinely. Few (if any) of these modalities are required for a locum tenens staff member. Onboarding processes and ongoing education often differ significantly from regular staff.

Unfortunately, there is a relative dearth of data on this subject, though it does appear that the topic may be of increasing interest in the research community. There are some emerging trends based on perceptions and anecdotal evidence. In 2024, interviews were conducted with locum tenens clinicians in the United Kingdom revealing several perceived impediments to patient safety for locum tenens staff, including lack of familiarity with environments, policies and computer systems.¹ Interviewees identified gaps for patient safety when a group relied heavily on locum tenens staff, with a lack of clear team leadership and direction. Other barriers to patient safety included group dynamics (e.g. exclusion from the "team"), and a potential lack of accountability, given that they are independent contractors.

However, a study that evaluated millions of visits to general practitioners in England over a 12-year period did not identify any statistically significant effects on patient safety parameters, such as emergency admissions, but found that patients who saw a locum tenens practitioners were 22% more likely to receive prescriptions for antibiotics and 8% more likely to receive prescriptions for opiates. Conversely, consultation with locum tenens practitioners decreased revisits by 12% within 1 week, and decreased referrals by 15% and additional tests by 19%.

Patient safety data specifically related to locum tenens utilization in anesthesiology is very difficult to obtain, with a significant lack of any major studies. A search in both PubMed and SCOPUS conducted in early 2025 yields no broad studies like those cited above that are specific to anesthesia care. Without this data in anesthesiology, and only weak evidence in other medical literature, it is difficult to assess the impact on patient safety and quality. Often the decision to proceed with a locum tenens clinician is made in a financial context or to provide coverage rapidly. Interestingly, a Python simulation model to determine that a locum tenens physician who worked 665 hours (or 11 weeks at an average of 60 hours/week) was a break-even point above which hiring a full time anesthesiologist was more cost-effective.³ Regarding patient safety, this study cited past work that demonstrated that locum tenens doctors did not have a higher mortality rate, adverse event rate or malpractice payout rate.^{3,4} Research regarding the patient safety impact of locum tenens is sparse, which also includes certified registered nurse anesthetists (CRNAs), who are increasingly used to provide anesthesia services during staffing shortages.

Though there may be limited empirical data to assess the impact of locum tenens staffing on patient safety in anesthesiology, the structural challenges of building and maintaining a robust safety program are likely magnified when using temporary workers. Nonetheless, there are concrete steps that may be used to improve patient safety when employing locum tenens clinicians (Table 1). Although outside agencies are often responsible for ensuring credentialing and training for their staff, additional steps should be taken to orient a new clinician to their environment, including to the physical space, available equipment, resources, policies and procedures, and electronic health record documentation. Consideration may be given to limiting their use in a facility to areas in which they have been oriented, such as the main operating room, and not deploying them to non-operating room anesthesia (NORA) locations. Patients undergoing NORA are known to be at a higher risk of severe adverse events; staffing these procedures and locations with clinicians with relative lack of familiarity of the environment may potentially further increase risk.⁵

Table 1: Barriers to patient safety for locum tenens staff, with their associated potential solutions by category

Barriers to Patient Safety	Potential Solutions
Lack of familiarity with environment	<ul style="list-style-type: none"> Site specific orientation Consider limited deployment Standardization of environment/available resources
Limited involvement in clinical governance	<ul style="list-style-type: none"> Use of regular clinical audits Requirements for professional development Mechanisms for feedback from locum tenens staff
Non-compliance with policies and procedures	<ul style="list-style-type: none"> Regular education for all staff Use of systems that mandate compliance with all staff (checklists, attestations, etc.)
Scope of practice effects	<ul style="list-style-type: none"> Clear delineation for clinicians regarding responsibility Orientation of all staff (temporary and permanent) regarding roles
Inhibited information exchange	<ul style="list-style-type: none"> Use of checklists/cognitive aids Establish clear communication pathways between staff Include locum tenens in communication

Limited involvement in clinical governance is not unexpected for locum tenens clinicians. Steps to mitigate its effect on patient safety may include using regular audits of clinicians' work, incorporating standardized requirements for professional development, and creating steps for feedback towards other staff for locum tenens. Lack of compliance for policies and procedures may affect patient safety; steps to improve this occurrence include regular education for all staff and use of systems that mandate compliance such as checklists or attestations. Patient safety with locum tenens may also be affected by lack of clarity regarding patient responsibilities. It is important to establish and convey clear expectations to both locum tenens and full-time staff.

Communication is always critically important for patient safety. Strategies to improve communication should be expanded to include locum tenens clinicians, including such items as the use of checklists or cognitive aids. Clear communication pathways should be established among clinicians, especially locum tenens staff, who may not be as familiar with using such modalities as integrated electronic health record messaging, Slack, WhatsApp or other alternate communication technologies. Perhaps most important is to ensure that locum tenens staff are included in routine departmental or group communications. Communiques such as departmental emails often contain critical and time-sensitive information and items such as changes in workflow or new expectations for staff. Ensuring that locum tenens staff and their preferred modes of contact are included in such communication can increase the likelihood that all professionals operating under the umbrella of anesthesia care are on the same page regarding updated policies, procedures and expectations.

Ensuring standardization and accessibility of resources, including medication and equipment, may also improve perioperative patient safety. Lack of standardization in numerous aspects of perioperative care (e.g. documentation in electronic health records, stocked medications, available airway equipment) has a downstream effect of requiring every new clinician to orient to new surroundings, whether or not they are locum tenens. The more aspects of clinical care that are standardized, the less time or effort will be required to orient to new processes. For example, the use of the Joint Commission Universal Protocol, which requires a pre-procedure verification process, marking of the procedure site, and performing a time-out is an expectation for any site that operates under their oversight. When a clinician operates at any Joint Commission site, this is an expected and anticipated component of perioperative patient safety, and its standardization enables its easy implementation widely.

Given ongoing staffing shortages across medicine and in anesthesiology, locum tenens staffing will likely continue to increase. The true effects on patient safety are difficult to ascertain quantitatively; nonetheless, there are inherent structural challenges that are likely impediments to effective safety programs. Understanding these unique factors that may affect patient safety more significantly with use of locum tenens staff and addressing these factors is the first step to mitigating the effects and successfully incorporating locum tenens professionals into a group's overall strategy to improve perioperative patient safety.

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