Air Ambulance Quality and Patient Safety (AAQPS) Advisory Committee Public Meeting #1 – Meeting Summary December 12, 2024

The Air Ambulance Quality and Patient Safety (AAQPS) Advisory Committee met virtually via Zoom.gov on December 12, 2024. The attached appendix identifies the AAQPS Advisory Committee members, agency employees, and others who attended the meeting. In accordance with the Federal Advisory Committee Act (FACA), 5 U.S.C. App. 2, the meeting was open to the public. The transcript and slides of the meeting are available at: AAQPS Advisory Committee

The meeting covered several topics: (1) an overview of the air ambulance industry; (2) an overview of the regulatory environment; (3) flight safety data and best practices; (4) the clinical quality environment; and (5) the statutorily required discussion topics for flight safety and clinical standards. Meeting sessions included presentations and opportunities for discussion. The presentation materials are available for public review and comment at AAQPS Advisory Committee. The agenda for the meeting and a list of the AAQPS Advisory Committee members are attached to this summary has an appendix.

Introduction and Background

Welcome
David Wright, Center for Clinical Standards and Quality (CCSQ), Designated Federal Officer

The AAQPS Advisory Committee (Committee) meeting began at 10:00 AM EST on December 12, 2024. Mr. David Wright, the Designated Federal Officer, gave welcoming remarks and shared meeting logistics. Mr. Wright stated that Committee members may participate in any discussions and vote on any matters put to a vote by the Committee Chair. Mr. Wright also stated that the meeting is open to the public and that members of the public may address the Committee with permission from its Chair or submit written material to the Committee at any time.

Introduction of AAQPS Committee Members
Jeff Richey, RN, MHA, FACHE, AAQPS Committee Chair

Mr. Jeff Richey introduced himself as the Chair of the Committee and asked members of the Committee to introduce themselves. Members of the Committee offered brief introductions.

Overview of the AAQPS
Jeff Richey, RN, MHA, FACHE, AAQPS Committee Chair

Mr. Richey reviewed the tasks assigned to the Committee by the No Suprises Act and stated that the Committee's purpose is to review options to improve quality, patient safety, and clinical capability standards for each clinical capability of air ambulances. Mr. Richey noted that the Committee's intended outcome is to define innovative approaches to improve quality, accessibility, affordability, and sustainability of air ambulance services for safe, quality healthcare.

Mr. Richey also provided an overview of the Flight Safety Subcommittee and the Clinical Standards Subcommittee, both of which will provide recommendations to the Committee. The Clinical Standards Subcommittee will cover three topics: (1) qualifications of different clinical capability levels and tiering of such levels, (2) patient safety and quality standards, and (3) clinical triage criteria for air ambulances. The Flight Safety Subcommittee will cover two topics: (1) options for improving service reliability during poor weather, night conditions, and other adverse conditions and (2) differences between air ambulance vehicle types, services, and technologies, and other flight capability standards, and the impact of such differences on patient safety. Clinical Standards Subcommittee members were selected from those who applied to the Committee. Flight Safety Subcommittee members were selected from DOT appointees on the Committee.

Mr. Richey noted that the Committee will aim to come to consensus on recommendations. If the Committee is unable to reach consensus or time does not allow, the Committee will vote on recommendations. Mr. Richey described the meeting schedule for both the Committee and the two Subcommittees and noted that, at the final Committee meeting on May 8, 2025, the Committee will vote and finalize recommendations for a Report to Congress.

Overview of the Air Ambulance Industry

Overview of the Air Ambulance Industry
Jana Williams, Association of Air Medical Services (AAMS)
Jason Quisling, Air Methods, Air Medical Operators Association (AMOA)

Ms. Jana Williams and Mr. Jason Quisling provided the Committee with an overview of the air ambulance industry including the types of services, vehicles, and staffing models utilized. They also noted that, today, 86% of U.S. residents in rural areas live within twenty minutes of an air medical asset. Ms. Williams and Mr. Quisling explained that the air ambulance industry operates within a complex regulatory environment governed by both federal and state requirements. The Federal Aviation Administration (FAA) is responsible for the regulation of aircraft, maintenance,

pilot certification, and flight standards, while state and regional authorities are responsible for medical personnel, equipment standards, and licensing. Other federal agencies, including the Department of Transportation (DOT), the Occupational Safety and Health Administration (OSHA), and the Department of Defense (DOD), control medications, licensure, and additional personnel safety requirements. In addition, many providers and industry groups voluntarily engage in safety programs, investing significant resources into developing and utilizing new technologies and safety measures that often exceed FAA requirements. Air ambulances serve as a crucial safety net, particularly in rural areas, but require significant logistical, infrastructure, and environmental considerations when operating.

Patient Perspective
Josh Cools, Association of Critical Care Transport (ACCT), Memorial Hermann Life Flight

Mr. Josh Cools emphasized the importance of patient advocacy and safety in critical care transport, particularly in air ambulances. Mr. Cools explained that ACCT's mission is to be the voice for critically ill and injured patients, advocating for consistent standards and accountability across the critical care transport industry. Mr. Cools outlined ACCT's recommendations for improving service reliability, clinical capability levels, and patient safety standards. He also presented data on air medical accidents, sharing that between 2000 and 2020 there were 87 air ambulance accidents and 239 fatalities, and that human factors were the major contributing factor to fatal accidents. Mr. Cools also discussed the challenges of aligning reimbursement with quality care, stressing the need for investments in aviation safety beyond FAA minimums. Mr. Cools highlighted ACCT's development of critical care standards; they updated their third version in 2022. He emphasized the importance of standardized levels of service capabilities and tiers and discussed the challenges of doing so. He summarized the impact of the No Surprises Act in establishing a platform for reasonable reimbursement and promoting high-quality, safe air transport services. Mr. Cools also highlighted the importance of separating specialty care as a service tier unique from routine Advanced Life Support (ALS) or critical care. In conclusion, Mr. Cools reiterated ACCT's commitment to defining a tiered transport reimbursement structure aligned with vehicle capabilities, clinical scope, and staff training.

Committee Discussion
AAQPS Committee Members

Committee members were invited to ask questions and engage in discussion around the state of the air ambulance industry. The discussion occurred both verbally and via the Zoom chat function. Overall, Committee members focused on the complexity and variability of needs across different regions. Different geographic areas require different levels of care, as noted by Mr. Cools and others. The Committee discussed the tiering model and highlighted the challenges of linking tiering to reimbursement, as costs and service levels vary by region. The

Committee also acknowledged the need for specialty care, such as pediatric services, to be addressed in a tiered model.

Mr. Cools noted that, as the population of an area decreases, it becomes challenging to provide industry-standard levels of care. He suggested that changes to the current reimbursement model would be needed to prevent this care from becoming cost prohibitive. However, Mr. Ben Clayton pointed out that Life Flight Network provides the same, standardized, levels of care across all their bases in five states across 500,000 square miles. Mr. Jim Houser discussed the importance of considering both cost and equity as the Committee deliberates on how appropriate services can be provided to all regions.

Mr. Cools explained that existing metrics, such as those from Ground Air Medical Quality Transport (GAMUT) or the Commission on Accreditation of Medical Transport Systems (CAMTS), are used for oversight, but the Committee will need to provide additional recommendations on ensuring quality of care. Mr. Cools also noted that the Committee will need to further discuss reimbursement. Mr. Cools noted that ACCT's initial focus was on establishing tiered quality expectations, but the Committee will need to determine the role reimbursement might play in tiering as well. Mr. Richey stated that the Subcommittees will play a role in answering this question. Dr. William Hinckley expressed concern over basing reimbursement on quality metrics as that might disincentivize the reporting of and learning from medical errors that is essential for improving patient safety.

Mr. Quisling said the lack of FAA regulation of helicopter infrastructure creates challenges. He noted that future Committee and Subcommittee discussions should focus on potential upgrades to the current infrastructure. He also noted the potential for industry use of safety management systems to manage operational risk in uncontrolled or unprepared locations.

Other members of the Committee noted the financial difficulties faced by air ambulance services, including charity care losses and reimbursement challenges, particularly in very rural areas.

Overall, the Committee recognized the need for a nuanced approach to air ambulance services, balancing quality, cost, and access while ensuring robust oversight and equitable service delivery.

Regulatory Environment

Federal Aviation Regulations for Air Ambulance Operations
Nolan Crawford, FAA

Mr. Nolan Crawford focused on the regulatory framework governing air ambulance operations, emphasizing the importance of operational safety for both crews and patients. Mr. Crawford explained the history of air ambulances and described the FAA's role in ensuring safety through regulations, orders, and advisory circulars.

Mr. Crawford provided definitions for air ambulance aircraft, operations, and medical crew members as used in the FAA's regulatory structure. He noted that 70% of air ambulance operations in the U.S. use rotorcraft, primarily used for short-distance, hospital-to-hospital transport, and 30% use fixed-wing aircraft for longer distances. The fixed-wing aircraft are normally multi-use aircraft used for more than air ambulance services. Mr. Crawford described the FAA's regulatory structure, including specific rules under Part 135 for air ambulances. Mr. Crawford emphasized the importance of regulations in enhancing safety, citing the 2014 rule that increased weather minimums for helicopters following a rise in fatalities. Mr. Crawford also discussed the FAA's guidance materials, such as orders, advisory circulars, Information for Operators (InFOs), and Safety Alerts for Operators (SAFOs), which provide information, best practices, and compliance methods for the aviation community. He highlighted the FAA's commitment to operational safety through various tools and procedures, including heliport design guides and safety alerts. In closing, Mr. Crawford shared statistics on air ambulance operations, noting that, in 2023, approximately 528,000 flight hours were logged, transporting about 385,000 patients. He underscored the significance of getting safety regulations right and encouraged collaboration with industry partners like the Air Medical Operators Association (AMOA) and the U.S. Helicopter Safety Team (USHST) to further enhance safety in air ambulance operations.

State Emergency Medical Service Perspective
Joseph House, National Association of State EMS Officials (NASEMSO), Kansas State Emergency Medical Service (EMS) Office

Mr. Joseph House highlighted the critical role of EMS offices in regulating and overseeing EMS systems across the U.S. Mr. House emphasized the importance of air ambulances as essential components of EMS systems, particularly in areas where they are the only means of delivering timely care. He acknowledged the challenges faced by the Committee in developing recommendations for clinical capability levels, tiering, and triage criteria for air ambulances, stressing the need for patient-centric regulatory functions. Mr. House pointed out that current

ground ambulance service models could be adopted by the air ambulance industry. He offered six key suggestions for the Committee's consideration:

1. Maintain flexibility
2. Create a critical care tier distinct from specialty care
3. Balance quality and resources to avoid unintended consequences
4. Encourage or mandate linkage between patient outcomes databases and the National EMS Information System (NEMSIS)
5. Strive for objective clinical triage criteria to ensure consistency and eliminate subjectivity
6. Embrace good over perfect and improve based on ongoing review

Mr. House expressed NASEMSO's readiness to support the Committee's efforts and offered to assist in developing patient-centric, evidence-based recommendations.

Current State of Quality and Patient Safety
Ron Kline, MD, Centers for Medicare & Medicaid Services (CMS)

Dr. Ron Kline provided an overview of how and why CMS measures quality of care and discussed the role of metrics in improving performance. Dr. Kline described CMS's existing quality levers including conditions of participation, the Quality Improvement Organization network, value-based programs, CMS's measure development and implementation process, and the shift towards digital outcome and patient-reported measures. He highlighted the importance of public reporting (e.g., the Care Compare site) in driving provider improvement. Dr. Kline described structural, process, and outcome measures used in quality programs, and the importance and challenges associated with risk adjusting outcome measures. Dr. Kline closed his presentation with a discussion of how to think about air ambulance transport quality measurement. For instance, Dr. Kline suggested structural measures such as ensuring the availability of necessary equipment and trained personnel, process measures, such as clinical activities crucial for optimal outcomes, and outcome measures like all-cause mortality and preventable complications during transport, with a focus on risk adjustment to account for varying transport risks.

Committee Discussion
AAQPS Committee Members

Committee members were invited to ask questions and engage in discussion regarding the regulatory environment.

Commissioner Grace Arnold raised a question about the applicability of CMS quality measures to air ambulance services and the Committee discussed the challenges of aligning CMS measures with private payer incentives. Mr. Tom Judge noted that the Medicare ambulance

transport benefit was originally designed for transport rather than medical care, which presents challenges in establishing quality measures and conditions of participation for air ambulances.

Several public commenters expressed via the chat that they were interested in additional oversight around quality and patient safety in air ambulances. One public commenter noted that CMS and private payers pay far too much money for air medical transport not to have conditions of participation, which require safe patient care and high-quality clinical standards. Another public commenter agreed that there should be a standardized way of measuring quality in all aspects of medical transport to incentivize quality.

The discussion by Committee members highlighted the need for a thoughtful approach to implementing conditions of participation, given their stringent nature. Committee members emphasized the importance of developing quality measures that are patient-centric and do not inadvertently lead to market-driven decisions that could compromise patient care. Commissioner Arnold requested more data on the breakdown of flight payments by payer type to better understand the financial landscape of air ambulance services, and Dr. Sean Michael shared a report by the Department of Health and Human Services (HHS) Assistant Secretary for Planning and Evaluation (ASPE) that addresses this question. Mr. House also offered to provide additional data on payers if it is of interest to the Committee.

Committee members raised concerns about the balance between maintaining high-quality care and ensuring access to air ambulance services, particularly in rural areas. The Committee acknowledged that the low volume of air ambulance operations can impact provider proficiency and safety. Committee members also discussed the need for transparency and patient choice in air ambulance services, with a suggestion to develop a system similar to hospital Star Ratings to inform patients and regulators. Colonel Steven Coffee expressed the importance of public messaging, stressing that safety and quality is the highest priority when it comes to air ambulance transport, as patients do not typically have a choice in how they are being transported.

One public commenter requested air ambulance statistics for fixed-wing flights, and Mr. Crawford noted that although this data is mandated for helicopters, it is not for fixed-wing ambulances and thus the data is less available. Mr. Quisling also explained that this data is more complex as fixed-wing aircraft are typically multi-use.

Committee members also discussed crew member duty time limitations, with a suggestion by an anonymous public commenter to consider extending similar regulations to clinical crew members as are applied to pilots. Mr. Crawford noted this is an important discussion, as medical personnel are an important part of the flight crew.

In response to a public commenter's question in the chat about the goals of the Committee, Mr. Richey and Mr. Wright noted the Committee will make recommendations to Congress on improving quality and patient safety in air ambulances. Mr. Richey noted the importance of robust discussions in Committee and Subcommittee meetings to ensure that this goal is met without creating new unintended challenges.

Overall, the Committee discussion underscored the complexity of balancing quality, safety, access, and financial considerations in the air ambulance industry, with a focus on developing patient-centered solutions and recommendations for Congress.

Flight Safety Data and Best Practices

Air Ambulance Industry Safety Statistics and Initiatives
Lee Roskop, FAA

Mr. Lee Roskop provided an analysis of air ambulance industry accident data, focusing on Helicopter Air Ambulance (HAA) operations under Part 135. He began by discussing the growth of the HAA Part 135 sector, with a 23% increase in HAA flight hours from 2016 to 2023. HAA Part 135 operations accounted for a significant portion of U.S. helicopter Part 135 flight hours, surpassing other segments like offshore oil and gas and air tours. Mr. Roskop presented accident metrics from 2016 to 2024, highlighting that HAA Part 135 has a lower accident rate than the overall U.S. helicopter industry. He detailed the counts and rates of accidents, fatal accidents, and fatalities.

Mr. Roskop shared observations from fatal accident data between 2009 and 2018, using findings from the USHST and the National Transportation Safety Board (NTSB). Key accident categories included unintended flight into instrument meteorological conditions (IMC), collisions with obstacles or terrain, and loss of control during flight. The NTSB findings frequently cited environmental and personnel issues in helicopter fatal accidents from 2016 to 2024, as well as organizational and aircraft factors.

Lastly, Mr. Roskop highlighted USHST initiatives aimed at improving safety in HAA Part 135 operations, including training, policy, outreach, and technology enhancements. Notable projects included the "56 Seconds to Live" initiative focused on preventing unintended IMC. He also described current initiatives including promoting conservative decision-making and improving fatigue awareness.

Air Ambulance Flight Safety Practices
Ben Clayton, Life Flight Network

Mr. Clayton provided an overview of safety management systems (SMS) in the air ambulance industry, focusing on the role of these systems in ensuring crew and patient safety. Mr. Clayton explained that SMS are structured around four pillars defined by the FAA: policy, risk assessment, safety assurance, and safety promotion. These pillars guide organizations in maintaining a high standard of safety.

Mr. Clayton described the importance of clear safety policies in preventing organizational drift and ensuring standardized operations. He emphasized the role of employees in identifying and reporting risks, which are then mitigated through formalized procedures. He explained that safety assurance involves monitoring and evaluating safety performance, using tools like flight data monitoring to ensure operations align with expectations.

Mr. Clayton highlighted the significance of safety promotion, where leaders actively support and invest in safety initiatives. He noted that the air ambulance industry widely uses technologies such as night vision goggles, terrain awareness systems, and flight data monitoring (FDM) to enhance safety. These technologies help pilots maintain situational awareness and improve their flying skills.

Mr. Clayton discussed the FAA's oversight of air ambulance operations under Part 135, noting that the FAA provides dedicated personnel to manage safety certificates and ensure compliance. He mentioned programs like the Aviation Safety Action Program and Line Operations Safety Audits, which allow personnel to self-report issues and receive feedback. Finally, Mr. Clayton described the collaborative nature of the air ambulance industry, with organizations like the USHST and the Air Medical Operators Association working together to share information and improve safety practices. He emphasized the industry's commitment to learning from each other to enhance overall safety.

Committee Discussion
AAQPS Committee Members

Committee members were invited to ask questions and engage in discussion regarding the flight safety data and best practices.

Mr. Robert Reckert highlighted that some of the programs from Mr. Clayton's presentation, including the Aviation Safety Action program and the Flight Operations Quality Assurance program, are voluntary. However, FAA data indicates these programs are successful when

implemented by air carriers. Therefore, the Committee might consider recommending their adoption.

Committee members noted it would be important to understand additional details of the data, such as the impact on accident data when specific technologies are introduced. However, Committee members discussed that the data is not always coded correctly and may not make clear what technologies were used during flights. The Committee might want to address data collection requirements.

Mr. Judge shared that although there are many technologies available to an operator, not all are mandated by the FAA. Mr. Judge also explained that the NTSB issued several recommendations in their 2009 report on air ambulances, including for the HHS to pay for quality and safety. He suggested that the Committee revisit these recommendations.

An anonymous public commenter asked in the chat if there is a standard against "helicopter shopping" where a hospital contacts multiple air ambulance services to find one that will transport a patient during bad weather if other services decline to do so. Ms. Eileen Frazer noted CAMTS standards do address this and "helicopter shopping" has declined in the past decade. However, Committee members noted that there are geographical variances in weather, so requesting air services from a different location that might have more favorable weather is reasonable. In these situations, communication between operators in similar areas is essential. Operators also need to communicate to hospitals their processes for accepting or declining services.

Mr. Reckert explained that there are also technologies, like the FAA's weather camera program, that have been successful at preventing accidents, and Committee members should discuss what infrastructure investments could be made in partnership with the FAA. Mr. Judge reiterated a concern discussed throughout the day that there is not the same level of investments in low altitude infrastructure as there are in airports.

Lastly, a public commenter recommended that, in the interest of quantifying the safety impact of infrastructure, the Committee recommend that the NTSB add a code for substandard infrastructure as a cause of accidents.

Clinical Quality Environment

Voluntary Certification and Standards

Eileen Frazer, RN, CMTE, Commission on Accreditation of Medical Transport Systems (CAMTS)

Ms. Frazer provided an overview of CAMTS, highlighting its mission to improve the quality of patient care and transportation safety. Ms. Frazer explained that CAMTS is a nonprofit organization which accredits various transport services, including rotor wing, fixed-wing, ground, and other medical transport services.

Ms. Frazer provided the history of CAMTS, which was originally formed in the 1980s in response to a lack of published standards for civilian medical transport. She highlighted the role of CAMTS in developing guidelines and standards to address safety concerns, such as night vision goggles, patient restraint protocols, and communication protocols. Ms. Frazer emphasized the importance of standards that are specific, measurable, and adaptable to different environments and resources. She explained that CAMTS reviews accidents and incidents from accredited programs to continuously learn and improve standards.

Ms. Frazer discussed the dynamic nature of CAMTS standards, which are reviewed and revised every two to three years to incorporate new technologies and practices. She highlighted the organization's focus on safety culture, fatigue risk management, and quality management. She also noted CAMTS accreditation requires the collection of GAMUT data, though there is not a reporting requirement, and CAMTS also administers a safety culture survey developed by the Agency for Healthcare Research and Quality (AHRQ).

Ms. Frazer outlined the accreditation process, which includes evaluating patient care protocols, medical direction, equipment use, and pilot qualifications. She noted that CAMTS can set standards above regulatory requirements, and that CAMTS offers flexibility in pilot qualifications through an operator risk tool which is reviewed by the Aviation Advisory Committee.

Finally, Ms. Frazer mentioned the challenges posed by the COVID-19 pandemic, which required CAMTS to adapt its accreditation process through virtual assessments and conditional accreditation.

NEMSIS Overview and Report-Out on Current Data and Gaps in Data

Eric Chaney, MS, MBA, NREMTP, National Highway Traffic Safety Administration (NTHSA), Office of Emergency Medical Services (OEMS)

Clay Mann, PhD, MS, MBA, National EMS Information System (NEMSIS) Technical Assistance Center (TAC)

Mr. Eric Chaney and Dr. Clay Mann provided an overview of the NEMSIS, focusing on its role in standardizing EMS documentation and data collection across the U.S. Mr. Chaney explained that NEMSIS is a system designed to facilitate data sharing at national and local levels, offering a comprehensive palette of approximately 600 standard data elements for EMS services to select from based on their operational needs. Mr. Chaney then described how data flows through NEMSIS, starting from local EMS services and moving up to state and national levels. He highlighted that all 50 states, three territories, and the District of Columbia participate in NEMSIS, making it a near-census of pre-hospital healthcare data.

Mr. Chaney presented specific data on aeromedical services within NEMSIS, noting that in 2023, there were 272,790 helicopter responses and 48,991 fixed-wing responses documented. However, Mr. Chaney noted that, if a state does not require the air medical services to report to the state EMS services, NEMSIS does not get that data.

Mr. Chaney detailed the types of services tracked by NEMSIS, including emergency responses, hospital-to-hospital transfers, and public assistance. He emphasized the system's capability to provide granular data, such as incident location types and the level of care provided during transport.

Mr. Chaney shared state-specific data on air ambulance usage, illustrating the variability in service use across states. He also highlighted NEMSIS's ability to analyze various aspects of air ambulance operations, such as transport times and patient care levels. Mr. Chaney invited the Committee to specify their data needs, offering to collaborate with the NASEMSO to provide detailed operational and clinical data to support the Committee's work.

Committee Discussion
AAQPS Committee Members

Committee members were invited to ask questions and engage in discussion regarding the clinical quality environment.

Colonel Coffee inquired about the collaboration between CAMTS and the DOD, specifically the United States Transportation Command (USTRANSCOM), and how CAMTS could utilize lessons learned from the DOD. He also asked about the use of virtual CAMTS accreditation during the COVID-19 pandemic. Ms. Frazer clarified that CAMTS accredits the medical service provided and not the operator, and that while Zoom was used for CAMTS re-accreditations, all new program site visits were delayed until in-person audits could be conducted.

Mr. Judge asked about the percentage of air ambulance programs accredited by CAMTS. Ms. Frazer estimated that CAMTS accredits about 75-80% of programs in the U.S., noting the complexity of measuring this due to programs having multiple named services. Mr. Judge

discussed that accreditation is not required for air ambulances but is required for other healthcare facilities, which should be discussed further among the Committee.

Mr. Richey asked if there were other accrediting bodies for air ambulance services. Ms. Frazer replied that other accrediting bodies include the National Accreditation Alliance of Medical Transport Applications (NAAMTA) and the European Aero-Medical Institute (EURAMI), for accreditation in Europe.

An anonymous public commenter asked a question in the chat that highlighted gaps in critical care transport data in NEMSIS (e.g., vehicle change, procedure specificity) and asked if there was consideration for expanded reporting. Mr. Chaney explained that NEMSIS was initially developed for ground ambulance service response and has expanded over time and there are areas where it might be expanded further if requested. Dr. Mann added that procedures are documented using specific codes, so if a critical care procedure is captured by a specific code, it would be included in NEMSIS data, but codes are not aggregated at the national and state level.

Following an inquiry from Dr. Hinckley, Ms. Frazer stated that defining critical care levels proved too difficult, and in consultation with critical care nurses, CAMTS has currently set aside the idea of tiered accreditation.

Mr. Richey noted in the chat that the Rotorcraft Occupant Protection Working Group (ROPWG) Task 6 Report might be valuable for Subcommittee deliberations.

Mr. Judge questioned the discrepancy between NEMSIS data and FAA data on rotorcraft transports. Mr. Chaney acknowledged the gap and emphasized the need for collaboration with state EMS offices to improve data accuracy, noting that some interfacility transports and healthcare system-owned aeromedical assets might not be counted.

An anonymous public commenter asked via the chat about the costs and benefits of CAMTS accreditation. Ms. Frazer detailed the initial and ongoing costs, noting that while accreditation does not directly impact reimbursement, it can lead to savings on aviation insurance and medical malpractice premiums.

Public Comments

The public was offered an opportunity to provide comments to the Committee. There were no public commenters, although the public provided comments via the chat on Zoom and email, which were answered throughout the Committee meeting.

Flight Safety Discussion

Overview of Statutorily Required Flight Safety Discussion Topics
Nolan Crawford, FAA

Mr. Crawford outlined the tasking for the Committee and the Flight Safety Subcommittee. Mr. Crawford explained that the FAA, in coordination with DOT and HHS, established the AAQPS to make recommendations as required by the No Surprises Act. The goal of the Committee is to develop quality, patient safety, and clinical capability standards for air ambulance services.

Mr. Crawford described the FAA's tasking notice for the advisory Subcommittee, which will be available on the AAQPS website. The Subcommittee is tasked with identifying potential regulatory guidance and operational gaps in air ambulance operations. This includes analyzing integrated weather operations, special technologies, and existing regulations under Part 135, as well as reviewing NTSB data and USHST initiatives. Mr. Crawford explained that the Subcommittee is encouraged to think creatively and explore areas for improvement in flight safety and patient care. Mr. Crawford provided examples such as weather reporting, landing zones, maintenance reliability, and helicopter availability. He noted the Subcommittee should also consider differences in air ambulance vehicle types and technologies, including fixed-wing, helicopters, and powered lift, and assess Instrument Flight Rules (IFR) and Visual Flight Rules (VFR) capabilities.

Mr. Crawford emphasized the importance of collaboration between the flight safety and clinical standards Subcommittees to enhance safety and service reliability. He asked the Subcommittee to provide clear recommendations on whether changes should be made through policy, rulemaking, guidance material, or specialized training. In conclusion, Mr. Crawford highlighted the need for critical thinking and interdependency among experts to ensure a safe environment for crews and patients, fulfilling the Congressional mandate and the FAA's objectives.

Committee Discussion
AAQPS Committee Members

Committee members were invited to engage in a discussion following Mr. Crawford's presentation. Committee members emphasized the importance of considering future advancements in aviation and clinical technology, particularly the complexity of managing airspace in urban areas and the need for aircraft capable of precision flying. The potential for public and private investments to improve rural runways and weather systems was also highlighted as an area for further exploration.

Committee members raised concerns about pilot shortages and the challenges of recruiting and retaining pilots in the air ambulance industry. The discussion touched on how industry can compete with Part 121 airlines offering higher salaries and how qualification minimums can be balanced with safety. Pay and reimbursement were cited as critical factors in attracting pilots, and the industry needs to compete financially with airlines to address shortages.

Improving service reliability in poor weather was also discussed. Dr. Hinckley mentioned that if air travel is not possible, ground transportation should be considered, but there are often not financial incentives to do so. Committee members mentioned additional challenges with ground transportation, including securing ground units for transport, particularly in rural areas where resources are limited. Other members of the Committee emphasized the fragility of rural ground services and the impact of reimbursement on service availability. They noted that the complexity of the pre-hospital environment requires careful consideration of air ambulance resources utilization. The Committee should consider discussing these issues further.

Overall, the discussion underscored the interconnectedness of air and ground transport services, the need for strategic investments in infrastructure and technology, and the importance of addressing workforce challenges to ensure the reliability and safety of air ambulance operations.

Clinical Standards Discussion

Overview of Statutorily Required Clinical Standards Discussion Topics
Sean Michael, MD, CMS

Dr. Michael outlined the complexity of establishing clinical standards due to the lack of a federal regulatory framework, in contrast with more structured flight safety regulations. He emphasized the role of CMS in ensuring high-quality healthcare through responsible spending of public funds, despite limited statutory authority over clinical services in EMS. Dr. Michael noted that the Committee should identify gaps in statutory, regulatory, and clinical standards for air ambulances, focusing on clinical capability levels, patient safety, and triage criteria. Dr. Michael encouraged the Committee to explore existing models and frameworks, considering the multi-state nature of regulations and the interaction between clinical and safety standards. He reminded Committee members that the goal of the Clinical Standards Subcommittee, and ultimately the Committee, is to inform recommendations to Congress, considering the structures, processes, and incentives that could enhance clinical standards in air ambulance services.

Committee Discussion
AAQPS Committee Members

Committee members discussed the clinical standards tasking. Dr. Michael emphasized that CMS operates within the bounds of existing statutes and cannot independently alter payment structures or designate EMS as an essential service without Congressional action. If they deem them appropriate, Committee members can recommend these changes to Congress. Additionally, Mr. Judge highlighted the importance of cost reporting, noting that EMS is only considered an essential service in 16 states and suggesting a need for broader state-level recognition. Mr. Judge recommended experts Stephen Thomas and Jacqueline Stocking provide valuable insights to the Committee or Subcommittee on patient selection and triage.

Closing

Final Reflections
AAQPS Committee Members

Committee members praised the session for staying on topic and on time. Commissioner Arnold suggested structuring future conversations around statutorily required areas, while also facilitating general discussions that will be required to support the required recommendations, like questions around financing. Dr. Hinckley expressed hope that the Committee will be able to develop recommendations that support financial incentives for aviation safety, clinical quality, and patient safety.

Recommendations for Future Discussion Topics
Jeff Richey, RN, MHA, FACHE, AAQPS Committee Chair

No additional recommendations for future session topics were discussed.

Next Steps
Jeff Richey, RN, MHA, FACHE, AAQPS Committee Chair

Additional Committee meetings will be held on February 18, 2025, and May 8, 2025, and Mr. Richey noted agendas for future meetings will be made public.

The meeting was adjourned by David Wright around 4:00 PM EST.

Questions and Answers

The following questions were sent by the public via email or were sent via the Zoom chat function during the meeting but were not answered live. The following are each of those questions and answers, where needed.

Question: The FAA does not officially define the Medical Crew Member as a part of the flight crew, nor license such as they do pilots and flight attendants. It would benefit the industry if they did.

Answer: Acknowledged.

Question: Is tiering focused more so on the level of service needed or selecting an appropriate provider?

Answer: Mr. Cools explained the main purpose of tiering is to ensure providers who expand operations to better serve higher acuity patients are compensated in alignment with the tiered level, but also that the most appropriate level of care and resources are available for each patient.

Question: Is there data that details the level of care across air transports?

Answer: Dr. Mann explained that, for every Electronic Patient Care Report completed using the NEMSIS standards, data is available on the credentials of the clinicians and a detailed description of the care provided.

Question: Would it be possible for quality and safety oversight to be modeled off current inpatient quality and patient safety programs, in which transparency in data collection and outcomes reporting is monitored and conducted with third-party vendors?

Answer: Dr. Michael and Dr. Kline both explained that it would be possible to create a similar program to CMS's inpatient quality reporting and value-based purchasing programs with an act of Congress. Dr. Michael noted that third-party vendors may work in parallel with CMS as Qualified Entities, but data reporting is not currently monitored and conducted solely by third party vendors for CMS's inpatient programs. Dr. Kline and Dr. Michael also mentioned that CMS could contract with an outside entity, like NEMSIS, to manage a quality reporting system, but that would require adequate funding and infrastructure investments.

AIR AMBULANCE QUALITY AND PATIENT SAFETY (AAQPS)

Federal Advisory Committee Meeting 1

Meeting Date: December 12, 2024

Note: This Advisory Committee is governed by the provisions of the Federal Advisory Committee Act (FACA), P.L. 92-463 (Oct. 6, 1972), as amended, 5 U.S.C. App. 2.

This is a public meeting that is being watched live by members of the public and is being recorded. By staying in this meeting, you are consenting to being recorded and for the recording and transcript of this meeting to be posted publicly.

Committee Purpose

The Advisory Committee will advise the Secretary of Health and Human Services and the Secretary of Transportation on options to establish quality, patient safety, and clinical capability standards for each clinical capability level of air ambulances. The Advisory Committee shall study and make recommendations, as appropriate, to Congress regarding the following with respect to air ambulance services:

1. Qualifications of different clinical capability levels and tiering of such levels.
2. Patient safety and quality standards.
3. Options for improving service reliability during poor weather, night conditions, or other adverse conditions.
4. Differences between air ambulance vehicle types, services, and technologies, and other flight capability standards, and the impact of such differences on patient safety.
5. Clinical triage criteria for air ambulances.

The recommendations will be collated into a Report to Congress.

Committee Structure

The Advisory Committee will hold three public meetings. In addition, there will be two subcommittees: a Flight Safety Subcommittee and a Clinical Standards Subcommittee. Each Subcommittee will hold nonpublic meetings and report their recommendations to the main Committee during the public meetings.

Meetings will be announced through the Federal Register and registration will be posted at https://www.cms.gov/es/node/1974466.

Committee Members

Chair:
Jeff Richey, RN, MHA, FACHE

Members:
William Hinckley, MD
Eileen Frazer, RN, CMTE
Jason Clark
Mark Gamber, MD
Jordan Pritzker, MD
Commissioner Grace Arnold
Col. Steven Coffee
Ben Clayton
Jim Houser
Thomas Judge
Paul Julander
Jason Quisling
Robert Reckert

Reference Documents

Please see the CMS Air Ambulance Quality and Patient Safety Committee website for reference and pre-reading materials: https://www.cms.gov/es/node/1974466

Agenda: First Full Committee Meeting

Overall Meeting Objectives:

- Introduce members of the AAQPS federal advisory committee
- Describe the purpose of the committee
- Provide background information on flight safety and clinical standards
- Identify priority topics for subcommittee discussions

(See next page for agenda)

Introduction and Background		
10:00 – 10:30 AM	**Welcome**	David Wright (DFO)
	Introduction of Members	Jeff Richey (Chair)
	Overview of the AAQPS	Jeff Richey (Chair)
Overview of the Air Ambulance Industry		
10:30 – 11:30 AM	**Overview of the Air Ambulance Industry**	Jana Williams, AAMS Jason Quisling, Air Methods, AMOA
	Patient Perspective	Josh Cools, ACCT
	Committee Discussion	
11:30 – 11:40 AM	**Break**	
Regulatory Environment		
11:40 AM – 12:40 PM	**Federal Aviation Regulations for Air Ambulance Operations**	Nolan Crawford, FAA
	State EMS Perspective	Joseph House, NASEMSO
	Current State of Quality & Patient Safety	Dr. Ron Kline, CMS
	Committee Discussion	
12:40 – 1:25 PM	**Lunch**	
Flight Safety Data and Best Practices		
1:25 – 2:10 PM	**Air Ambulance Industry Safety Statistics and Initiatives**	Lee Roskop, FAA
	Air Ambulance Flight Safety Practices	Ben Clayton, Life Flight Network
	Committee Discussion	

	Clinical Quality Environment	
2:10 − 2:55 PM	**Voluntary Certification and Standards**	Eileen Frazer, CAMTS
	NEMSIS Overview and Report-out on Current Data and Gaps in Data	Eric Chaney, NHTSA, OEMS Clay Mann, NEMSIS TAC
	Committee Discussion	
2:55 − 3:05 PM	**Break**	
	Public Comments	
3:05 − 3:25 PM		Public
	Flight Safety Discussion	
3:25 − 3:55 PM	(Focusing on the Statutorily Required Discussion Topics): • Options for improving service reliability during poor weather, night conditions, or other adverse conditions • Differences between air ambulance vehicle types, services, and technologies, and other flight capability standards, and the impact of such differences on patient safety	Nolan Crawford, FAA
	Committee Discussion	
	Clinical Standards Discussion	
3:55 − 4:25 PM	(Focusing on the Statutorily Required Discussion Topics): • Clinical triage criteria for air ambulances • Qualifications of different clinical capability levels and tiering of such levels • Patient safety and quality standards	Dr. Sean Michael, CMS
	Committee Discussion	

Closing	
Final Reflections • Committee final reflections • Recommendations for future discussion topics • Future meeting dates and agenda • Email/procedure for providing additional comments	Jeff Richey (Chair)

Acronyms

AAMS	Association of Air Medical Services
AAQPS	Air Ambulance Quality and Patient Safety
ACCT	Association of Critical Care Transport
AHRQ	Agency for Healthcare Research and Quality
ALS	Advanced Life Support
AMOA	Air Medical Operators Association
ASPE	Assistant Secretary for Planning and Evaluation
CAMTS	Commission on Accreditation of Medical Transport Systems
CCSQ	Center for Clinical Standards and Quality
CMS	Centers for Medicare & Medicaid Services
DOD	Department of Defense
DOT	Department of Transportation
EMS	Emergency Medical Service
EURAMI	European Aero-Medical Institute
FACA	Federal Advisory Committee Act
FAA	Federal Aviation Administration
FDM	Flight Data Monitoring
GAMUT	Ground Air Medical Quality Transport
HAA	Helicopter Air Ambulance
HHS	Department of Health and Human Services
IMC	Instrument Meteorological Conditions
InFOs	Information for Operators
NASEMSO	National Association of State EMS Officials
NEMSIS	National EMS Information System
NTHSA	National Highway Traffic Safety Administration
NTSB	National Transportation Safety Board
OEMS	Office of Emergency Medical Services
OSHA	Occupational Safety and Health Administration
ROPWG	Rotorcraft Occupant Protection Working Group
SAFOs	Safety Alerts for Operators
SMS	Safety Management Systems
TAC	Technical Assistance Center
USHST	U.S. Helicopter Safety Team