

CORRESPONDENCE

DIALOGUES

SECTION EDITORS: Sean Ferguson, MCPPara, FdSc, MSc^{*1,2,3}; Carl Moen, MPM, EMT-P^{4,3}; Ginny Kaplan, PhD, MHS, Paramedic^{5,6,7}

Section Editor Affiliations: 1. Fatima College of Health Sciences, Shakhbout City, Al Mafriq, Abu Dhabi, UAE; 2. Alnawa Medical, Abu Dhabi, UAE; 3. International Journal of Paramedicine (IJOP), Hagerstown, MD, USA; 4. Southern Alleghenies EMS Council, Altoona, PA, USA; 5. Eastern Oregon University, ; 6. Methodist University, Fayetteville, NC, USA; 7. Brunswick Community College, NC, .

Recommended Citation: Ferguson, S., Moen, C., & Kaplan, G. (2026). Dialogs. *International Journal of Paramedicine*. (14). 231-267. <https://doi.org/10.56068/WHHR7507>

Keywords: correspondence, paramedicine, EMS, emergency medical services

Disclosures: None.

Funding: External funding was not used to support this work.

Published: April 14, 2026

**Corresponding Author:*
fergi7692@icloud.com

The Dialogues section publishes ‘letters to the editor’ with comments and questions regarding previously published articles. Our intent is to foster professional conversations about the papers to include its methods, analyses, results, conclusions, implications, and implementation issues. We will also accept general comments and questions regarding the Journal. The selection of submissions will be at the sole discretion of the Journal’s editorial team. IJOP will also facilitate discussions of articles in the NEMSMA email discussion group on Google Groups (<https://groups.google.com/g/nemsma>) to facilitate broader reach and participation in scholarly conversations. The IJOP editorial team will moderate these conversations and curate posts to include in the pages of the Journal. The authors of articles will be invited to directly participate in these discussions. We anticipate that a many of these conversations will take place in the message threads of the IJOP’s email discussion group, called IJOP Dialogues. We want to reach and engage more of our colleagues in professional discourse regarding the art and science of paramedicine. We hope that this IJOP Dialogues section will help accomplish that.

RE: DEBATE: AN ASSOCIATE DEGREE SHOULD BE REQUIRED FOR ENTRY-LEVEL PARAMEDICS. [HTTPS://INTERNATIONAL-JOURNALOFPARAMEDICINE.COM/INDEX.PHP/IJOP/ARTICLE/VIEW/3543](https://internationaljournalofparamedicine.com/index.php/ijop/article/view/3543)

The following is a curated excerpt from the message thread on the NEMSMA Discussion Group (<https://groups.google.com/g/nemsma>) labeled “[3543] IJOP Perspectives Debate: An Associate Degree Should be Required for Entry-Level Paramedics.

Gunderson MR, Walker E, Duckworth R, Bouthillet T, Cebollero C, Washko J, Taigman M, Gerard D, Chapleu W, Judge T, Proc-

tor B, Imperatrice L, Lawrence R, Anderson J, Keavney M, Dworsky P, Phelps S, Sandy C, O'Meara P, Smith A, Kirkwood S, Violato E, Nudell N, Heffern T. Discussion Thread for DEBATE: An Associate Degree Should be Required for Entry-Level Paramedics.

The January-March issue of the International Journal of Paramedicine includes a new section called Perspectives. This is a venue for the debate of controversies facing the paramedicine community.

Our first debate was on the proposition that an Associate degree should be required for entry-level paramedics. The debate teams members were: Sean Caffrey, Ed Bauder, Louis Imperatrice, Gregg Margolis, Mike Thomas, and John Todaro. They were organized into two teams - arguing in support of and in opposition to the proposition.

The debate was conducted through a series of eight asynchronous video recording sessions moderated by IJOP Editor-In-Chief, Mic Gunderson. The event was organized by IJOP Perspectives Section Editor, Ted Lee. The eight video sessions were edited into a single program posted on the IJOP YouTube channel (<https://youtu.be/9I6Xpp-pA6yw>). It will also be made available soon on IJOP's audio podcast outlets:

Apple Podcasts: <https://podcasts.apple.com/gb/podcast/international-journal-of-paramedicine/id1765013611>

iHeart: <https://www.iheart.com/podcast/269-international-journal-of-p-209676566/>

The audio was transcribed to produce the manuscript that appears in the pages of the Journal (<https://internationaljournalofparamedicine.com/index.php/ijop/article/view/3543>).

The debate is not over. What do you think - and why? The paramedicine community is invited to participate in a professionally-toned conversation where you can share your perspective. This is taking place in the NEMSMA discussion group on Google Groups (<https://groups.google.com/g/NEMSMA>). Look for the message subject line: "[3543] IJOP Perspectives Debate: An Associate Degree Should be Required for Entry-Level Paramedics." Please make your voice heard by participating in the discussion. This is moderated discussion group, so please use a respectful and professional tone, particularly towards those whose opinions differ from your own.

Complementary to the debate, the January-March issue also features a narrative review paper entitled, "Bachelor's degree as entry-to-practice: A literature review of paramedicine and other health professions." It is available at <https://internationaljournalofparamedicine.com/index.php/ijop/article/view/3528>.

-- Mic

Mic Gunderson, REMT-P (Ret.), FAEMS
Editor-In-Chief, International Journal of Paramedicine

Today, to help start the conversation addressing the debate, I'll be inviting several people to comment.

To get things started, I'd like to introduce Eoin Walker. With over 20 years of experience in paramedicine and critical care, he is passionate about advancing the standards and practices of pre-hospital emergency medical services globally. As a Senior HEMS segment promoter at Airbus Helicopters, he works with governments, organizations, and stakeholders to design and deliver customized Helicopter EMS solutions that meet the bespoke needs and challenges of each healthcare eco-system. Eoin also shares his knowledge and expertise as an Associate Professor at Northeastern University, where he teaches and mentors students in the discipline of Human Factors and the fundamental interplay with medicine. Additionally, he hosts and runs three podcasts that reach a global audience of over 500,000 listeners across 145 countries, covering topics such as emergency medicine, extreme medicine, and wellness. Through these platforms, he aims to inspire, educate, and empower the next generation of clinical and non-clinical professionals and leaders. In addition, Eoin is a podcast section editor for IJOP.

Eoin, What's your take on the issues raised in the paramedic degree debate?

-- -Mic

Mic Gunderson, REMT-P (Ret.), FAEMS
Editor-In-Chief, International Journal of Paramedicine

In my opinion, the case for degree-level certification within paramedicine is both pragmatic and evidence-based, reflecting the increasing clinical, cognitive, and professional demands placed upon modern paramedics. While historic and contemporary concerns regarding cost and accessibility of education are valid, they should not be conflated with arguments against higher educational standards. Education is expensive; however, it is precisely this investment that confers empirical credibility, professional legitimacy, and long-term sustainability to the profession.

Paramedicine has evolved far beyond a purely technical or skills-based role. Contemporary paramedics are required to exercise autonomous clinical judgment, interpret complex physiological data, engage in shared decision-making, and integrate seamlessly within wider healthcare systems. Degree-level education strengthens these capabilities by developing critical appraisal skills, clinical reasoning, communication proficiency, and research literacy, competencies that cannot be reliably achieved through certificate-only models. The empirical literature consistently demonstrates that higher educational preparation in healthcare correlates with improved clinical decision-making, patient safety, and system integration.

The nursing profession provides a compelling and relevant analogy. Nursing's transition toward degree-based entry pathways did not diminish clinical excellence; rather, it professionalised the workforce, enhanced public trust, and enabled role expansion into advanced practice, leadership, education, and research. Importantly, nursing retained diversity in educational routes while creating structured academic progression. Paramedicine stands at a similar inflection point. A degree requirement does not invalidate experiential learning; it contextualises it within a robust academic framework that supports lifelong development.

Affordability concerns must be addressed, not ignored. Initiatives such as bursary schemes, employer-supported education, and community college pathways directly mitigate financial barriers and strengthen the argument for degree-level entry. These mechanisms acknowledge the reality that education has a cost, while recognising its long-term return on investment for clinicians, services, and patients alike. Critically, such schemes democratise access to higher education rather than restricting it, ensuring that socio-economic status does not preclude professional advancement.

Degree-level certification also establishes a clear educational roadmap for paramedics. It creates coherence between entry-level practice, postgraduate education, clinical specialisation, leadership roles, and opportunities beyond frontline practice. This structured progression promotes workforce retention, enhances professional mobility, and enables paramedics to transition both within the profession, into education, management, research, or advanced clinical roles, and outside it, into broader healthcare, policy, or academic domains.

I am a direct beneficiary of degree-level education within paramedicine. The academic foundation it provided enhanced my clinical reasoning, credibility, and professional mobility, while opening pathways that would otherwise have remained inaccessible. My experience reflects a broader truth: degree-level education does not distance paramedics from patients; it equips them to serve patients more effectively, safely, and sustainably.

I think that degree-level certification is not an unnecessary barrier but a necessary evolution. It strengthens clinical practice, legitimises paramedicine as a profession, supports workforce development, and aligns paramedics with their healthcare peers. The future of paramedicine depends not on resisting educational advancement, but on embracing it with appropriate structural and financial support. This has proven to provide personal and professional mobility in the international pre-hospital, humanitarian, and corporate sectors.

-- -Eoin Walker

The next commentator to join the discussion is none other than Rom Duckworth. Rom is a dedicated emergency responder, author, and educator with more than thirty years of experience working in career and volunteer fire departments, hospital healthcare systems, and private emergency medical services. Rom is the Chief of the Ridgefield Connecticut Fire Department and director of the New England Center for Rescue and Emergency Medicine. Rom holds a master's degree in public administration, is an accredited Fire Officer and graduate of the National Fire Academy's Executive Fire Officer program, and is the recipient of the NAEMT Presidential Award, American Red Cross Hero Award, Sepsis Alliance Sepsis Hero Award, and the EMS 10 Innovators Award. He is the author of "Duckworth on Education" as well as chapters in more than a dozen EMS, fire, rescue, and medical textbooks and over 100 published articles in fire and EMS magazines. A member of the NAEMT Board of Directors, Sepsis Alliance Advisory Board, Fire Engineering Advisory Board, as well as other professional advocacy boards, Rom continues to work for the advancement of emergency services.

Rom, how do you feel about the proposition that an associate's degree should be required for entry level paramedics and any of the points raised so far in the formal debate or the ensuing comments?

-- Mic

Mic Gunderson, REMT-P (Ret.), FAEMS
Editor-In-Chief, International Journal of Paramedicine

I want to be clear at the outset that I am speaking only in my role as a paramedic and as a personal advocate for our profession, not on behalf of any organization. I also want to be transparent that I hold a college degree and deeply value what formal education has contributed to my development as a clinician, educator, and leader.

I strongly support professional development through higher education. Paramedicine has evolved dramatically since the 1990s, when many of us—including myself—were trained primarily as technicians. Today's frontline paramedics function as autonomous clinicians, expected to synthesize complex information, manage uncertainty, communicate across systems, and make high-stakes decisions in resource-limited environments. College-based education clearly supports those competencies, and I agree with much of what has been articulated here and in the literature about the benefits of degree-level preparation.

Where I diverge is not on the value of education, but on the tool we are proposing to achieve it.

The debate proposition before us is specific: an associate's degree should be required for entry-level paramedics. The critical question, in my view, is not whether paramedics should be educated at the college level—but whether a mandated degree requirement, implemented broadly and uniformly, is the right mechanism at a time when EMS systems are under unprecedented financial and workforce strain.

Across large portions of the country, particularly in rural, frontier, and mixed volunteer-career regions, EMS already operates as a fragile system. We are seeing the expansion of what many have rightly termed EMS deserts—areas where access to timely paramedic care is tenuous or disappearing altogether. In those environments, even modest increases in cost, time to entry, or educational availability can have outsized effects on workforce sustainability and patient access.

Affordability is not a theoretical concern. Many of the federal and state funding streams that historically supported EMS education, workforce development, and community college infrastructure are increasingly unstable, challenged, or reduced. Mandating an associate degree without simultaneously securing durable funding, geographic access, and employer support risks creating a barrier that disproportionately affects the very communities already struggling to maintain coverage. The result could be a net reduction in paramedic availability, even as the clinical expectations of the role continue to rise.

I do not believe this is an argument against degrees or academic rigor. Rather, it is an argument for. Professions do not advance solely by raising entry requirements; they advance by building coherent, supported pathways that align education, workforce needs, compensation, and career longevity. In some systems, an associate-degree re-

quirement may be entirely appropriate and achievable. In others, it may unintentionally accelerate the contraction of EMS services.

A degree can (and should) be a powerful enabler of professional growth, mobility, leadership, and advanced practice. But when used as a hard gate to entry, absent sufficient structural support, it can also function as an exclusionary filter with real downstream consequences for access to care.

For me, this is not a binary choice between “education” and “no education.” The question is whether a universal associate-degree mandate, applied at the point of entry, strengthens or destabilizes an already uneven national EMS landscape. I believe we can and must continue to elevate educational standards while remaining honest about the operational realities of the systems we serve.

If our goal is a stronger, more professional, and more sustainable paramedic workforce, then our solutions must be as nuanced as the varied environments in which paramedics practice.

-- Rommie L. Duckworth

The next commentator I'd like to introduce is Tom Bouthillet. Tom is another one of those folks that doesn't need an introduction because most of you are already familiar with much of his work.

Currently, Tom is the Policy, Accreditations, and ISO Manager for Chatham County Fire Department, and Advisor for the Cambridge Consulting Group; Creative Director of Plank Bridge Media. Among his many other professional activities, Tom has been a member of NHTSA's High Performance CPR Working Group; Program Director of the South Carolina Resuscitation Academy, Member of the Editorial Advisory Board of EMS World; Content reviewer for the British Paramedic Journal; Co-producer of the Code STEMI web series, and Editor of EMS12Lead.com. Tom is interested in system performance, process improvement, and evidence-based performance measures for time-sensitive diagnoses.

He graduated with a paramedic/paramedicine degree from Parma Community Hospital EMS Education Program. His writings have been referenced in the American Heart Journal, the Journal of the American College of Cardiology: Cardiovascular Interventions and the EP Lab Digest.

Tom, what's your view on the idea that an associate degree should be required for entry level paramedics and any of the points raised in the discussion so far?

-- Mic

Mic Gunderson, REMT-P (Ret.), FAEMS
Editor-In-Chief, International Journal of Paramedicine

Mic,

Thank you for the opportunity to comment.

First, congratulations! The Socratic approach was refreshing. Given what the Rimstad literature review found about workplace tension between pre-reform and post-reform practitioners in the UK, this kind of civility will go a long way to ensure experienced providers feel welcomed to engage constructively rather than pushed aside.

I support the associate's degree requirement, but this debate solidified for me that how we implement it will determine whether it succeeds or fails. The literature review identifies proximity to institutions, cost, and time to completion as the primary barriers students face, particularly in comparable health care professions. The community college infrastructure Gregg Margolis described can address these, but only if we're intentional about it.

We have an educator pipeline problem. While Rimstad identifies this as a potential bottleneck, neither document offers a concrete strategy for addressing it. If we require associate's degrees taught at the college level, we need faculty

credentialed and supported to teach there. We cannot mandate educational requirements without a serious plan to develop the educators who will deliver that education.

The debate did not spend much time specifying what the additional education should contain, although I appreciated John Todaro's inclusion of expanded practice roles. If we're asking future paramedics to spend more time in school, we should take the opportunity to introduce things like epidemiology, evidence-based medicine, advanced clinical reasoning, improvement science, system design, and research literacy. In nursing these would be advanced courses, but even at the associate's degree level we should start building the foundation.

One thing that troubled me was the notion that the only thing that matters is proof that degree requirements improve patient outcomes. If the discussion is limited in this way, we risk unintentionally adopting an industrial logic, where a paramedic becomes interchangeable with an ambulance or a tank of fuel. Degree requirements may actually improve working conditions over time by establishing that paramedics are professionals worthy of investment, not interchangeable inputs to keep trucks running.

The Rimstad review found that degree-prepared practitioners in other fields reported increased confidence, improved decision-making, and greater career mobility. These aren't patient outcomes in the narrow sense, but they affect retention, job satisfaction, and our ability to attract talent, which eventually circles back to patient care anyway. When we think about EMS as a profession, the focus changes to developing practitioners capable of independent judgment and adaptation to circumstances their original training didn't anticipate.

Canada, Australia, New Zealand, and the UK have already made this transition. The literature review mentions they observed benefits, but beyond workplace tensions, neither document seriously examined what implementation looked like or what problems emerged. If we're going to have an evidence-informed discussion, the experience of countries that have already done this seems relevant.

In summary, the question isn't really whether paramedics should be better educated. It's whether we're willing to invest in building the infrastructure (educators, curricula, institutional partnerships, financial support for students) that makes better education achievable.

Respectfully,

-- -Tom Bouthillet

Our next commentator is Chris Cebollero. Chris has strong credentials inside and outside of EMS. He has a background as a senior operations executive with over two decades of experience leading enterprise-level initiatives across healthcare and human services and a proven track record of optimizing complex systems, scaling service delivery across multi-site operations, and aligning cross-functional teams with mission-critical objectives. Chris is known for driving measurable improvements in quality, compliance, and workforce performance across large regional markets. His expertise includes financial stewardship, organizational design, and regulatory navigation—supported by deep experience in transforming underperforming operations into integrated, outcomes-driven systems. In addition to all of that, Chris is also a podcast section editor for IJOP.

Chris, What's your take on the issues raised in the paramedic degree debate?

-- -Mic

Mic Gunderson, REMT-P (Ret.), FAEMS
Editor-In-Chief, International Journal of Paramedicine

Thank you Mic, I have enjoyed reading the journal article and listening to the debate. Also, I appreciate my peers' thoughts and insights here this morning. I would like to encourage those of you who are following this post to share your thoughts. I have debated this topic tons with many of you out there, and your opinions are great.

In my opinion, I do not believe requiring an associate degree as a condition of entry into paramedicine is the right move for EMS currently. We are already facing a critical paramedic shortage, and extending initial education requirements risks worsening that problem. Many EMTs pursuing paramedic education are doing so while earning EMT wages, often living paycheck to paycheck. Asking them to remain in school an additional year without meaningful financial relief creates a real barrier to entry and retention. This is not a question of educational rigor or professional standards, but one of feasibility, timing, and sustainability within the current EMS environment.

There is also a persistent misconception that degree requirements alone will lead to higher pay or improved reimbursement. EMS is still classified by CMS primarily as a transport benefit, not a provider service. Until the reimbursement model changes and paramedics are recognized as billable healthcare providers, additional education does not translate into higher wages or sustainable system funding. My experience working in the Mobile Integrated Healthcare and Community Paramedicine transition for over a decade reinforces this reality. Paramedics cannot bill independently, nor can agencies reliably capture revenue under a physician's license for clinical services. If compensation is the goal, reimbursement reform must come first. Then in my opinion, an AS degree would not be the entry point, but a Bachelor's degree would be the bar. But I digress.

As an EMS educator and executive, I firmly believe in higher education and lifelong learning for EMS professionals—but not as a mandatory entry requirement. Education absolutely matters—but so does experience. What makes a great paramedic is experience, mentorship, and progressive clinical exposure, supported by targeted education along the way. Our priority should be getting new paramedics into the field safely and efficiently, then creating clear pathways for advanced education, leadership development, and specialization. I fully support advanced education through tuition assistance, flexible scheduling, and partnerships with colleges, including hosting satellite classrooms within EMS agencies. Higher education should be encouraged, supported, and rewarded—but it should not be a gatekeeper to entering the profession.

Respectfully submitted,

--Chris Cebollero

I appreciate the collegiate presentation of well recent points from all participants. As I read through them, I still see improved academic requirements as the right direction, but not the right step. From a purely academic standpoint, it's a no-brainer. From a policy standpoint, the underlying framework issues, if not addressed first, will result in an elevated academic mandate, raising costs significantly without resulting in significant benefit.

--Rommie L. Duckworth

The next commentator is Jon Washko. He is one of those guys with staggering credentials and credibility in our field. Jon is a seasoned healthcare executive with over 40 years of experience in pre-hospital and healthcare operations improvement. Beginning his career as a volunteer firefighter and EMT at the age of 16, he has progressively held executive leadership roles at local, regional, and corporate levels within various EMS and healthcare organizations.

Jon is a leading industry expert in EMS system design, high-performance EMS concepts, deployment strategies, EMS economics and finance, lean business processes, system status management, and the integration of technology in healthcare. His expertise extends to mobile integrated healthcare, community paramedicine, air-medical program development, telehealth, transfer centers, and emergency medical dispatch. He is frequently sought after by organizations, both thriving and in crisis, to provide consulting services and drive transformative change.

A prolific author, researcher, educator, and speaker, Jon regularly presents at national conferences, publishes in peer-reviewed journals, and contributes to industry publications. He serves on numerous editorial boards, industry association committees, and government advisory councils. He also provides expert witness testimony on complex EMS and healthcare legal matters.

Currently, he serves as the Assistant Vice President for the Center for Emergency Medical Services at Northwell Health and SkyHealth, is an Assistant Professor of Emergency Medicine at the Hofstra/Zucker School of Medicine, and is CEO of a private consulting firm specializing in healthcare delivery and EMS system optimization.

Jon earned a Bachelor of Science in Emergency Medical Services Administration from Drexel University and a Master of Business Administration in Global Health Services Administration from Hofstra University. His academic achievements are recognized through his induction into Beta Gamma Sigma, the international honor society for business excellence. Jon is also a member of the peer-review team at IJOP.

Jon, what are your thoughts on the proposition question and the points raised in the debate?

-- -Mic

Mic Gunderson, REMT-P (Ret.), FAEMS
Editor-In-Chief, International Journal of Paramedicine

Thanks Mic,

Please note that these comments are my personal opinion and do not reflect the position of any organization.

Back in 2019, I was deep in the middle of this debate while sitting on my seat with the National EMS Advisory Council (NEMSAC) who had initiated a rather controversial advisory on the issue. I heard hours and hours of testimony from both sides, and found myself quickly acting as mediator between the educators, fire service, privates, 3rd service, dispatchers, hospital based, air medical and volunteers, and others, all heavily attached to their perspectives.

My stance on the matter has not changed much over the years, and I wrote an article on the subject back then (see below). Ultimately, until we find a way to pay for our existing undervalued efforts and under reimbursed expenses, let alone the additional value that degrees could bring, all we are doing is setting expectations that will over promise and underdeliver to our front line clinicians.

Fixing the reimbursement system is the only path to resolving this debate. Unfortunately, our industry's voice and limited PAC dollars are largely caught in a self-defeating, endless loop: repeating the same approaches we've used for decades, yet expecting different results....you know the rest.

Hopefully the data collected from the recent GADCS results can be the foundational evidence we need to shift the narrative, but not necessarily through the traditional methods of lobbying our congressional legislators who ultimately string us along to end up with extending, extended, extended, extended, extenders and not much reform. It's time for a different approach here if we truly want to change the economics to value our efforts and education.

<https://www.jems.com/ems-training/to-educate-or-not-to-educate-an-economic-and-ems-role-confusion-conundrum/>

To Educate or Not to Educate: An Economic and EMS Role Confusion Conundrum

Recently I was called out by individuals on various social media channels because I haven't weighed in publicly about the importance of postsecondary education for EMS providers. Although I believe that pursuing higher education is an important piece of a successful progressive career, I'm not ready to "take sides" as to its mandatory requirement for all of our traditional frontline EMS provider roles.

For those who advocate for formal education, the evidence is strong. A postsecondary education provides a foundation for skills development beyond what we learn in EMT and paramedic school, such as helping us develop critical-thinking skills, challenging us to strengthen our emotional intelligence, helping us improve our financial and business acumen, and teaching us skills that make us more astute in our selected specialty and better-informed citizens and consumers, all desirable traits that have value. Furthermore, there's research and evidence that suggest

that individuals with postsecondary education make a higher wage and some in EMS believe that having degrees will also garner us more respect at various tables—not sure on the evidence on this one.

Although I've personally pursued both postsecondary and postgraduate studies, I'm not convinced that these items would have helped me earn more respect or a higher wage when I was in a primary clinical role as a 9-1-1, transport and ED practicing paramedic. Rather, these tools have helped me to form a foundation for the basis of pursuing my career aspirations beyond a field provider role, shifting me from a primarily physical role to a mostly intellectual one.

In fact, when I was a field paramedic with my undergraduate degree, I was often on the receiving end of criticism, bias and prejudice by my peers and superiors, who couldn't comprehend why I "wasted my time and money getting a degree," and I was often treated differently from what I can only assume was a defense mechanism for those who thought my intellectual pursuits were intimidating. (This was the early 90s.)

Wearing the Grey Collar

EMS is a mix of career types as well as professional roles that sit in two color spectrums, white and blue, and include public safety, healthcare, public health and disaster response functions. Some of these functions are considered white collar in nature and use more intellectual skills, and some are considered blue collar in nature and rely more on physical, hands-on skills.

Given this conundrum, we should really classify EMS in a third spectrum, as a "grey collar" profession, meaning it's a mix of both blue and white collar skills sets. Traditionally, blue-collar work is vocationally educated, and white-collar work requires postsecondary education. Given our grey-collar status, an argument can be made that the primary role that a provider is participating in should drive the educational requirements.

I consider the public safety and disaster response sides of our mission towards the blue-collar side of our grey collar color spectrum, and our public health and healthcare roles leaning toward the white-collar side of the grey collar color spectrum. Thus, an argument can be made that if you're in a traditional EMS provider role, then the current vocational education system seems appropriate and has worked for decades. However, if your role is taking you more into the public health and healthcare aspects of our changing mission (e.g., community paramedicine, expanded scope paramedic, etc.), then a strong argument can be made that additional postsecondary education is warranted in order for us to first, do no harm.

Lastly on this topic, I believe that postsecondary and postgraduate education is an absolute requirement for all future EMS leaders, given the forthcoming complexity of disruption that lies ahead. Although my take on this topic will likely be cast as waffling or riding the fence of this divergence, the fact is that for now, given the current environment, both arguments are correct and as is often the case in EMS, one size does not always fit all.

This said, it's time for us to adapt to our changing environment, and I believe we'll see EMS diverge into two paths as the future of healthcare reform takes shape: One path will continue our traditional public safety roles, funded by subsidies of which the vocational education system has a proven record. The other path is where EMS becomes more healthcare-focused, funded by value incentivized healthcare revenue arrangements, which will require additional postsecondary education.

Also, I have to call out the belief that higher education for EMS practitioners will result in upward pressure on wages, as I believe this is a chicken and egg argument. On one side, higher education is typically rewarded with higher pay, however on the other side you can't get blood out of a turnip to pay for it.

Compensation and Salary

In order for EMS to pay better, it needs better reimbursement mechanisms, whether it be from some form of subsidy or an alternative healthcare reimbursement system. The bottom line is that we as an industry have underspent on wages and many other expense categories, especially in the private sector, because our existing healthcare reim-

bursement system isn't aligned with what should be our true costs (which includes better compensation), nor is it aligned with the value EMS providers bring to the healthcare continuum.

Because a significant portion of our revenues are essentially "capped," the ability for us to charge—and actually get paid—based on our actual and/or desired expenditures (e.g., better wages), plus the need for all businesses to produce some form of a margin to at a minimum recapitalize, forces downward pressure on everything when revenues stay flat or decrease against a rising expense base. In these cases, subsidization of some form is needed to pay for what's desired in order to fill the gap; however, in markets where this option isn't desirable, wages, margins and dollars suffer with tremendous downward pressure, not allowing an expenditure to exist at all or putting upward pressure on productivity, thus burning out our providers.

Although I agree that higher education is a good thing, to mandate it now for everyone with the expected outcome of upward pressure on wages would also require considerable payment reform for EMS that fully accommodates this upward pressure on expenses. Without this intrinsic tie, we'll likely hurt and dissolution ourselves by creating an educated workforce without the ability to pay for the value this next evolutionary step could ultimately bring our profession.

Additionally, this situation would likely add additional downward pressures on the available supply of labor, which is already a substantial problem in many communities. For rural EMS and volunteer-based EMS systems, this type of requirement could be disastrous without some form of financial offsets, essential service or critical access status designation.

Lastly, respect is earned not given. This holds true no matter your education, experience or background. If we truly desire to gain the respect of our peers, EMS leaders must focus on creating a culture of trust and respect within themselves and their own organizations if we ever expect to get respect from others.

As Maya Angelou put it, "I've learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel." Respect is earned by how you make people feel, not titles, not status, not position—and certainly not just education.

-- -Jon Washko

As a point for clarification on Jon's post, he referred to "GADCS." For those not familiar, it is the acronym for Medicare's Ground Ambulance Data Collection System.

-- -Mic

Mic Gunderson, REMT-P (Ret.), FAEMS
Editor-In-Chief, International Journal of Paramedicine

The next commentator is Mike Taigman. Like several of the others participating in this conversation, Mike has amazing credentials, qualifications and experience in our discipline. Mike is one of those guys that David Letterman might say "needs no introduction."

During his more than five decades in EMS, Mike has focused the majority of his career on helping to make things better. As a street paramedic in Denver he honed Myers clinical skills caring for patients and helping new paramedics learn to provide solid clinical care with kindness and compassion. He is a popular conference educator and author of more than 600 articles in professional journals. He is an Associate Professor in the Master of Science in Healthcare Administration and Interprofessional Leadership at the University of California San Francisco UCSF where he helps healthcare leaders develop the ability to make meaningful and measurable improvements. As a consultant, he has worked with EMS, Fire, and Public Health in 48 of the 50 states, most of the Canadian Provinces, Israel, Palestine, Australia, and throughout Europe. His expertise includes EMS Street Survival, Patient Centered Leadership, and Effective Quality/Performance Improvement. Mike holds a Masters Degree in Organizational

Systems. Mike was the facilitator for the development of the EMS Agenda 2050. Mike serves as the Improvement Guide at FirstWatch. IN addition, Mike is a member of the Editorial Advisory Board for IJOP.

Mike, what are your perspectives on the proposition that an associates degree should be required for entry level paramedics and the issues raised in the debate?

-- -Mic

Mic Gunderson, REMT-P (Ret.), FAEMS
Editor-In-Chief, International Journal of Paramedicine

Thank You Mic!

I'm the product of a 600-hour vocational paramedic program run through a Colorado hospital in 1980. A couple of decades later, I had the opportunity to do some consulting in Australia. I was getting a tour of the main hospital in Melbourne when the cardiologist who was showing me the CCU stopped to take a phone call. As he was taking a report on a patient having an inferior wall MI who was being admitted to his unit, I realized that it was a paramedic admitting the patient. It turns out that paramedics were directly admitting patients to the CCU, the OR, and labor and delivery. I was blown away.

The next day, I toured their Ambulance Officer College, where new employees spent three years full-time learning how to be our equivalent of an EMT. They have volunteers in Australia who complete a 200-hour program, but that's not for folks who make EMS their profession. Talking with the medic was like talking with PAs or nurse practitioners here. They understood disease process, differential diagnosis, and treatment options at a level far past me. Keep in mind, this was 25 years ago.

That planted the seed in my mind that we could elevate our profession, provide much more sophisticated care, and become equals in the house of medicine. I understand the short-term staffing crisis and the dynamics of younger generations. But I firmly believe that we need to bite the bullet and make degree requirements part of our world.

-- -Mike Taigman

Next in our line up of commentators is Dan Gerard. Dan Gerard, MS, RN, NRP is the Immediate Past President of the International Association of Emergency Medical Services Chiefs. With 40+ years in the field, starting in Newark, NJ, he's both a National Registered Paramedic and an RN. As the EMS Coordinator for a Northern California fire department, he leads the EMS division, Community Paramedic Unit, and Mobile Crisis Team. He's also shaped Oakland's EMS as Coordinator and interim EMS Director. An author and educator, Dan worked as an EMS consultant to revamp EMS systems from Hong Kong to the Bahamas. He holds a Master's in Healthcare Administration, and is a doctoral candidate in organizational leadership who has completed a Harvard Kennedy School fellowship.

Dan, you have a lot of experiences in EMS to draw from – what do you make of the question that an associate degree should be required for entry level paramedics and any of the points made in the discussion so far?

-- -Mic

Mic Gunderson, REMT-P (Ret.), FAEMS
Editor-In-Chief, International Journal of Paramedicine

Thank you Mic it is an honor to be invited to participate with this stellar group.

Paramedicine is no longer a technical trade, it is a clinical profession. Modern paramedics practice independent clinical judgment in uncontrolled environments, often without immediate physician oversight.

In EMS specifically, today's patients are older, sicker, and more complex. The system is no longer dominated by trauma and cardiac arrest.

A degree does not just add knowledge, it builds the cognitive framework needed to manage complexity safely. If we want paramedics treated as clinicians rather than drivers with skills, the profession must align with the educational norms of clinical practice.

Countries with degree-based paramedicine models (e.g., UK, Australia, Canada) show higher retention, professional status, and system integration.

It is intellectually inconsistent to demand higher level thinking and clinical expertise from certificate-level preparation. This is not about turning paramedics into physicians.

It's about giving paramedics the education they need to safely do the job we already ask them to do independently, ethically, and expertly. An associate's degree is not inflation; it is alignment with reality.

-- -Dan

Daniel R. Gerard, MS, RN, NRP

<http://www.linkedin.com/in/dangerard>

I'd like to bring someone else into the conversation - Will Chapleau.

Will Chapleau is a founding partner of the International PreHospital Medicine Institute and one of our editorial advisory board members. He has been a Paramedic since 1976, graduated nursing school in 1989 from Prairie State College and worked as a Trauma Nurse Specialist for 37 years. His career began in 1975 with the Chicago Heights Fire Department, the last 6 of which, as Chief of the department. For 15 years he was an educator in the Good Samaritan Hospital EMS System in Downers Grove, Ill., and at St. James Hospital and Prairie State College in Chicago Heights. In April of 2020, he retired from the American College of Surgeons (ACS) where served as the Director of Performance Improvement (8 years), previously managing Trauma training programs for the ACS-Committee on Trauma (6 years).

Will served as the Chair of the Pre-Hospital Trauma Life Support (PHTLS) Executive Committee of the National Association of Emergency Medical Technicians (NAEMT) for nearly 20 years. He also served on the NAEMT Board of Directors, the boards for the National Association of EMS Educators, the Society of Trauma Nurses, chaired a task force for the National Association of EMS Physicians and a frequent contributor to the Journal of Emergency Medical Services (JEMS), EMS World Magazine, and Fire Apparatus Magazine. He has published in the Journal of Trauma and Critical Care, the Journal of Emergency Medicine and served on the editorial board of EMS World Magazine. Will has written and edited twenty pre-hospital care textbooks, published in four languages, taught prehospital care and lectured in conferences in over 60 countries.

Will, how do you see the issues in the debate and any of the comments made so far?

-- -Mic

Mic Gunderson, REMT-P (Ret.), FAEMS

Editor-In-Chief, International Journal of Paramedicine

Thanks for letting me join this discussion Mic

I'd like to begin by saying that I am a fan of developing PreHospital Medicine Associate, and advanced degrees. I believe that many people that dedicate their lives to EMS would be able to use that education to further the profession and hopefully improve patient outcomes.

That being said, I do not support making it mandatory for entry level Paramedics to have associate degrees. My colleagues have already pointed out the staffing issues we have with the current system and they are right to be concerned that adding to the time and cost of school would likely cause further shortages of staff.

Some of my colleagues have suggested that the degree requirement would improve outcomes and I have to say, there is scant if any science to support that. Others have said that the additional education would elevate the profession and bring better wages and more respect to Paramedics. I think my colleagues have also pointed out, that policy and regulation is needed to accomplish that not degree programs.

Critical thinking is an important tool and teaching and practicing Critical thinking will likely have a positive effect on our providers and our patients. I don't agree that degree programs necessarily provide that support for critical thinking. Here, I think continuing education gives the best opportunity for exercising our critical thinking skills.

We also need to consider our workforce. For many of our providers, being a Paramedic is part of their job, not all of it. They are also working Firefighters, Police Officers, and other public servants that provide this service along with their other jobs.

I believe Medical Directors and Education centers have the best opportunity to improve the workforce and patient outcomes is through continuing education tied to the experience of the providers and patients in their system.

As I said, I'm a fan of developing degree programs for PreHospital Medicine. I don't think it should be required. We may get there. Strong program development in time, might drive providers into that pathway and a support a natural progression to that end.

-- Will Chapleau

The next person to bring into the conversation is Tom Judge. Tom has an extensive background in EMS. He is the Executive Director and co-founder of LifeFlight of Maine. He has also served as chair of the Association of Critical Care Transport (ACCT) and has advised many organizations around the world on EMS program development. Tom began his career serving as an EMT and Paramedic over forty years ago. He introduced the first community paramedicine program in the State of Maine.

With an extensive background in emergency medical services and air medicine, he has worked in the private, public and non-government sectors designing and implementing emergency care systems nationally and internationally. Tom has served as an air medical and EMS subject matter expert for the Institute of Medicine, the US Government Accountability Office, the National Transportation Safety Board, and the State of Maryland as well as serving five successive appointments to the Federal National EMS Advisory Council. He currently serves on a federal Advisory Commission to end surprise patient billing. Other current service includes the Board Quality Committee for the Coastal Healthcare Alliance, the Rural Health Transformation Team for the Maine Department of Health and Human Services, and the Rural Health Action Network.

A long-time faculty member for the National EMS Physicians Association's National EMS Medical Director Course, Tom has worked in multiple arenas developing standards for air medical care and EMS including assisting with the development of the international standards of the Joint Commission on Accreditation of Health Organizations and led the development the first international standards for Critical Care Transport. A keen advocate for patient and operational safety, he leads the Infrastructure work group for the US Helicopter Safety Team and has been a member of the International Helicopter Safety Team since its inception. He is a past Chair of the Association of Critical Care Transport, past President of the Association of Air Medical Services, a Board Member for the Medevac Foundation International, and served 10 years on the Maine EMS Regulatory Board including serving as Chair.

I could go on and on about Tom's contributions to our discipline, but I should also mention that Tom is a member of the IJOP Editorial Advisory Board.

Tom, given your extensive experiences and deep insights on EMS, what do you make of the arguments for and against the proposition that an associate degree should be required for entry level paramedics?

-- Mic

Mic Gunderson, REMT-P (Ret.), FAEMS
Editor-In-Chief, International Journal of Paramedicine

Thanks, Mic, for setting up this interesting debate and commentary. I appreciate the inputs from so many great thinkers and doers in EMS over the years. This is an interesting topic that has been wandering through the profession since the late 70's and early 80's. There are quite a number of comments about reimbursement, the cost of education, challenges in recruitment and retention, and the construct of a profession. These are real issues, but I think miss the point.

Parallel to the topic of degrees and academic credentials is the ongoing and never resolved issue of what is EMS? Our originating premise was time limited, delegated practice resuscitation medicine for cardiac arrest and life taking trauma. Over the years we realized that was less than one percent of our practice of unscheduled medicine.

The path for evolution, the original EMS Agenda for the Future in 1998 postulated EMS is the intersection of public safety-rescue and resuscitation medicine, emergency medicine, and public health. This has been repeated over time. The IOM picked up the conversation with the 2006 EMS at the Crossroads which called for a lead Federal Agency to coordinate the ongoing development of EMS. Despite the great work over the years, or the NHTSA Office of EMS, FICEMS, and NEMSAC there is still no single policy identity for EMS, and it may well be the ensuing times have hardened the edges of all the players into a series of silos, all important but increasingly distinct from the original premise of cardiac arrest and life taking trauma. Without coherent policy there will be a never-ending struggle for reimbursement and education. Note, the Department of Education defines nursing as a profession but is currently in a debate just proposed to exclude graduate nursing programs (like MSN, DNP) from its technical definition of "professional degree" for federal loan purposes, which will dramatically increase costs and barriers but doesn't change the actual professional nature of the job.

We were doing a project back in the early 90's in Belfast, Northern Ireland during "the Troubles" one of the paramedics pointed out: "our real job is we are the dustbin men of society." Everything that goes wrong lands at the door of EMS. The expansion of resuscitation medicine, into broader unscheduled medical need large and small is now mental health, elderly health, social failures in food, housing, addiction medicine, public health, violence prevention, time critical care for acquired brain injuries, vascular disease, complex respiratory failure, sepsis, etc. etc. The evolution and remit of EMS continues. Indeed, EMS is all of these and more. And true to our historical origins meeting the people we care for at the point of need

I think the better and first question is to figure out what do our patients need? What are the delineation lines of EMS—what in the most simplistic terms is the practice geography of:

- *time limited, protocol driven resuscitation medicine primarily delivered through public safety agencies, requiring technical education, versus:*
- *the much more complex practice geography of community level medical care, delivered through the healthcare system requiring far more academic science.*

If we look at the question through the eyes of patients and their unscheduled need I think we will find the path forward.

Resuscitation medicine continues to be refined. The much wider breadth of field medicine at the point of need however is in transformation requiring science and evidence. EMS is the closest we have to universal healthcare access and the safety net is fraying, especially in rural areas. One of the examples we face every day in rural America (and really, rural everywhere) is the continued dissolution of the hospital obstetrics system and the need for high-risk OB interface and transport. Five years ago, we were not in the HROB business. Today we are. Hospital OB

services and indeed hospitals continue to close. The patient time gap between need and care is extending rapidly and will depend on EMS, as it always must manage the gaps. The stakes are high, and mistakes are beyond easy calculation of costs. The lines between pre-hospital and hospital medicine continue to transition. The scientific basis and evidence as well as technology continues to change rapidly with increasing miniaturization of diagnostic technology coupled with new capabilities for specialist physician decision support and ability to guide a remote practitioner's hands. As an example of the latter, we have the ongoing discussion of treat and no transport with increasing need for additional experience and skill sets in our community paramedics. Once we can agree on the distinct fields of practice, we will be more able to agree on the necessary education and credentials including residencies to gain practice proficiency.

The future is unfortunately always Darwinian, and the continuing rapid evolution of EMS is no different. Our non-protocol, technician based high performing pit crew practice is one geography and destiny while the much larger role of EMS clinician driven extended practice and community medicine is going to become increasingly complex requiring increasingly academic practice and science based. Quick examples are papers published in medical journals showing J shaped curves for both EMS and emergency medicine nearly 800 EMS and over 7400 emerg medicine papers published in 2020 in 31 journals. And these do not count the myriads of other papers related to today's EMS practice. The science is ever bigger and more demanding.

-- Tom Judge

Great debate. From a patient's perspective at the point of need, the answer is both technical and academic practice depending on the geographies. My own take is a community college associate's degree reflects the current practice environment for ever more needed and skilled street paramedics with high quality technical education. Further academic degrees may be required for more complex medicine. As noted earlier, the urban rural EMS paradox continues and the practice environment where we sophisticated practitioners is rural America.

As other commentators in the debate have noted, we can also learn from afar. One of the really interesting emergency medicine education programs back in the 90's at the University of Sheffield in the UK had everyone going into medicine—paramedics, nursing, and physicians taking the first two years of training together followed by one to several more years of education depending on the final practice environment. If we want to build a comprehensive emergency care team this is a good model. I would also add one editorial note that in countries where EMS is a core component of the healthcare system per patient reimbursement and cost of paramedicine education are not drivers in the system. We spend a lot of energy managing fundamentally bad system design.

It will be interesting to see if we are responsive too necessary change—one of the major Maxwell challenges of medicine to meet the practice needs of all patients.

-- Benjamin Proctor

My name is Benjamin Proctor. I am currently a U.S. Army Combat Paramedic and work outside of traditional EMS systems. I hold a bachelor's degree from Columbia Southern University and am currently enrolled in the University of Louisville School of Medicine's Health Professions Education program. I have worked alongside paramedic professionals from around the world, including Canada, Spain, Sweden, South Korea, Lithuania, and Latvia.

As a paramedic working outside of traditional EMS, I've been following this debate closely and wanted to add a my perspective.

A recurring issue is that this discussion is being framed almost entirely through the lens of EMS. EMS matters, but paramedicine is larger than ambulance-based systems. Paramedicine is a healthcare profession centered on clinical assessment, diagnosis, and treatment. When we conflate paramedicine with EMS, we limit how we think about education, scope, and professional growth.

I created a LinkedIn post that highlights what we are up against without degree-based education. In that example, two physicians successfully argued before the Texas House Health and Human Services Committee that they could not delegate tasks such as IV placement and medication administration to paramedics. Their justification was not competence or experience, but education. Specifically that paramedics do not hold degrees comparable to nurses. This is the reality of the fight we are having. Until paramedics are educated like our medical peers, we will continue to struggle to earn a seat at broader medical decision-making tables.

We also need to be precise with language. Entry into paramedicine begins at the EMT level. At most colleges, EMT training is typically 10–12 credit hours, which nearly satisfies the first semester of a paramedic program. EMT education provides the foundational skills. Paramedic practice is a progression into higher-risk decision-making and greater autonomy, and education should reflect that responsibility. Importantly, CoAEMSP already requires paramedic programs to be sponsored by or aligned with a college or university. That standard is already in place. Given this, we should ensure paramedics receive academic credit for the education they are already completing rather than continuing to rely solely on certificate-based coursework.

Concerns about workforce and access are valid, but there are ways to address them without staying locked into the current certificate-only model. One option is allowing students to test for the NREMT Paramedic exam before completing all degree requirements, then practice under a restricted license with strict supervision in a structured “resident paramedic” model. During this phase, experienced paramedics serve as true clinical educators, and students can complete their remaining coursework, potentially online. Once all degree requirements are met, the paramedic transitions to an unrestricted license.

This debate is not about gatekeeping. It is about aligning education with responsibility, recognizing the education paramedics already receive, and preparing paramedics for modern clinical roles. I appreciate the opportunity to contribute and look forward to continued discussion.

-- Benjamin Proctor

Hi Benjamin,

You're experience points out the potential benefit for higher and diverse education options for providers not working in EMS operations. I agree, there's a place in this discussion for the depth and breadth of where Paramedics find themselves working and how we can support opportunity and the challenges faced in those environments. That being said, most Paramedics will work in EMS. EMT's and Paramedics were created to serve EMS in communities everywhere.

As I said in my initial response, I support developing degree programs. I also support specialized education and training for diverse atmospheres. Today we're talking about the base and while we can improve the quality of current training, I don't think a degree requirement for entry level Paramedics is the answer.

-- Louis Imperatrice

Good evening everyone, I love seeing so much discussion and involvement in the thread and topic and am grateful to have been a part of this! As I mentioned during the debate, this topic tends to see us stray from the notion that this is for entry level paramedics. We are not talking about degrees for advanced practice paramedics, EMS educators, or EMS leaders, we're talking about the day 1, ink still wet on their paramedic card provider. I want to first start by saying, I am in no way opposed to degrees for paramedics, during the debate I touched on this, however I must agree with Rom and Chris. Rom's point on EMS deserts and the mandating of a degree will likely only decrease access to paramedic care. I also agree with Chris's point which I believe says it best..."What makes a great paramedic is experience, mentorship, and progressive clinical exposure, supported by targeted education along the way."

For me, in my discussion points during this debate, the key indicator for me being on the disagreement side of the question posed was the word "mandatory." For decades, and still currently, we collectively as EMS professionals, across the country and the world, are providing high quality, evidence based medicine, without a degree mandate. Even without the degree mandate we still see a lack of ability to easily enter the field.

If there was clear and concise measurable data that paramedics with an associates degree provide higher quality clinical care to patients, I would support this mandate 100% over and over, but we just don't have that full data set yet.

Do I believe eventually we should be at a point where associates degrees or higher are mandatory for EMS, I sure do, however until we have the measurable data, and have solved the recruitment and retention aspect of EMS, we are just simply not there yet. There are too many barriers to entering into EMS as it stands, low pay, college is expensive, lack of access to paramedicine degree programs in areas of the country, etc.

Collectively, especially dating back to the 70s, 80s, and 90s, we have overlooked the mental health and well being of paramedic students and EMS providers. EMTs working for near minimum wage while going to paramedic school and barely making ends meet; having to make decisions of food on the table or pay next semesters tuition, dealing with the obstacles and hurdles of everyday life - for the hopes of a better career. We have allowed paramedic students to become sleep deprived, stressed, and lose their resilience. I personally, in my career, knew two paramedic students, who at the onset of their education were excited, driven, and motivated, who took their own lives due to the stress of paramedic school. This just simply cannot happen.

Instead of focusing on making it more difficult to become a paramedic, we should be focusing on ways to make it easier and more affordable. As Chris mentioned, EMS is still classified as a transport benefit with poor billing reimbursement. Would a more feasible approach be to allow certificate or vocation paramedics to enter the profession, obtain real-life on the job experience, and simultaneously enroll in an accelerated associates program, funded by state or federal government? Students could use real-life experience (which we know is a major basis of being a great paramedic and clinician) to obtain credits towards a degree, use educational credits from their certificate program and complete an associates degree at an accelerated pace.

Having state or federal financial support would also ease the burden of financial stability, allow for a better work life balance (wouldn't have to do the work, school, work, school, shuffle) and allow for overall mental health awareness. This would produce, in my opinion, better prepared and more resilient paramedics, who are set up for long term success in the profession. Not to mention, the experience clinically of working as a paramedic with the baseline knowledge, will only increase the chances of true success in an associates or higher degree program.

I want to also add that collectively as a whole, in many professions, not just EMS, more and more emphasis on experience and soft skills verses degrees is taking light. Breaking through the paper ceiling is something that more and more organizations are embracing. Walmart, IBM, and Google are all companies that now weight real-life experience and soft skills over credentials. Maryland, Colorado, and Pennsylvania have also removed degree requirements from many governmental jobs, and the federal government has recently expanded its competency based hiring frameworks over degree requirements in recent years.

I understand we are talking about medicine and clinical care which is a highly technical profession requiring advanced knowledge, however I am sure we all know the cardiothoracic surgeon with the laundry list of post-nominals who has never treated or operated on a complex case compared to the baseline educated surgeon, who spent 15 years operating in a major cardiac center taking on the most complex cases with success. Who would you want operating on you? The same can be said about paramedics...the twenty year paramedic who has worked in a busy, high performance, EMS agency with ample experience and clinical excellence, or the paramedic with the degree, but no real world experience whatsoever?

--Louis Imperatrice

Will Chapleau, thank you for your response to my post.

I don't agree that most paramedics will work EMS. If the average career lifespan of a paramedic really is around five years, then by definition most paramedics have already moved on, either into other areas of healthcare or out of medicine entirely. That tells me they may start in EMS, but we will lose them when they realize that EMS isn't a profession but a job.

Keeping entry requirements to a certificate program has not stabilized the workforce or improved retention. It has simply preserved the status quo. We also do not see this approach taken in other healthcare shortages. There is a well documented physician shortage in this country, yet no one is seriously proposing that Doctors don't need degrees and the degree requirement is an unrealistic barrier to entry.

Our current certificate paramedic education already meets almost all of the academic requirements for an Associate of Science degree. In most cases, it would only take minor adjustments to transition the programs we already have into degree-granting pathways. The U.S. military offers a real world example that often gets overlooked. It is the largest producer of EMTs and paramedics in the United States. All graduates of the Combat Paramedic Program and the Special Operations Combat Medic Program earn 56 academic credit hours and an Associate of Science in Health Sciences with a major in Emergency Medical Services Paramedic. That program was not created by shopping around for an existing degree to fit into. It was deliberately built to meet the operational and clinical needs of the military. Uniformed Services University (USU) Emergency Medical Services - Paramedic, A.S.H.S.

That same approach can apply to civilian paramedicine. An entry level associate degree in paramedicine does not have to be generic or borrowed from another profession. We can design it to meet the actual needs of today's paramedic. When our original certificate programs were built, they were largely based on resources like the 3rd edition of Nancy Caroline's Emergency Care in the Streets, which was roughly 650 pages. The scope, responsibility, and knowledge expected of paramedics today goes far beyond that.

Modern paramedicine already contains enough academic and clinical content to justify an associate degree. The question is not whether the material exists. It clearly does. The real question is why we continue to sell ourselves short by not giving our paramedics the credit they have already earned.

If we want paramedicine to mature as a profession, improve retention, and be taken seriously alongside our healthcare peers, then raising educational expectations has to be part of that conversation.

-- Benjamin Proctor

Louis great points, but I want to reframe them for a minute. The framing of this as an "entry-level" issue actually strengthens, not weakens, the case for a degree. Day-one paramedics are not entry-level healthcare workers in any meaningful sense. On their first shift, they independently administer high-risk medications, make irreversible clinical decisions, manage undifferentiated complaints, and assume legal responsibility for patient outcomes in uncontrolled environments. That level of autonomy is fundamentally different from other OJT (on the job) models. Experience and mentorship are essential, but experience without a strong educational foundation simply accelerates the repetition of habits, not the development of clinical judgment. Education is what teaches how to think, not just what to do, and it is precisely at entry that those cognitive frameworks must be established to protect patients and providers alike.

Second, the argument that we lack "clear measurable data" sets an unrealistic and internally inconsistent standard. We already mandate associate degrees for nurses, respiratory therapists, and radiologic technologists without randomized trials proving degree causality for every outcome. Healthcare regulation has never relied on absolute proof; it relies on risk management, complexity, and precedent. The evidence across health professions is clear that higher education correlates with improved critical thinking, safer medication administration, better communication, and stronger adherence to evidence-based practice, qualities that matter profoundly in EMS's increasingly complex

clinical environment. Waiting for perfect EMS-specific data while the scope, acuity, and liability of paramedicine continue to expand is not prudence; it is professional stagnation.

Finally, concerns about access, cost, mental health, and EMS deserts are real, but they are arguments for system investment, not arguments against education. Low pay, burnout, financial stress, and suicide risk are not caused by degrees; they are caused by a system that demands advanced clinical labor while refusing to professionalize, reimburse, or support it appropriately. Regarding mental health and resilience, EMS clinicians will become the most routinely trauma-exposed mental health professionals in United States as we implement more crisis response models and increase engagement as law enforcement transitions out of this role. You are absolutely correct since the 1970's we have overlooked mental health and well-being of the EMS provider, but we have an opportunity to address wellness as part of obtaining your associates degree. Work life balance is a misnomer. If you are unhappy at home, you don't leave that at the door when you come to work, vis a vis if you are unhappy at work that follows you home, regardless of the state of balance you have achieved. Other countries did not solve workforce sustainability by lowering educational expectations, they solved it by aligning education with compensation, career mobility, and institutional support. Allowing certificate-only entry indefinitely does not reduce barriers; it locks paramedics into a low-status, high-attrition model with limited leverage for reform. If we truly care about access, resilience, and long-term success, the solution is not to keep paramedicine under-educated, it is to make degree-based entry affordable, supported, and paid, so the profession finally matches the responsibility we already place on its newest clinicians.

We can easily manage a pathway forward for those who are currently paramedics or in school, so that they will continue to have the same success as the people who come after them.

All great points though.

--Dan Gerard

Benjamin if I may.

From my own experience it harkens directly to what you are speaking to. I wanted to earn my associates degree. I already had some college credits from Union County College for my paramedic education, 16, and Thomas Edison State College gave me credits for my clinical education (which was 1200 hours so they gave me 40 credits). I found an associates degree program at my community college. I CLEPED my general education required (GER) credits, 21 in total, the only GER I took was English, because I am from NJ and it is a different form of the Queens tongue...but I digress...

I took my A&P (I & II), microbiology, and medical anthropology/sociology. When I was done with those two semesters, I had 95 credits...when I went in to talk to my counselor at the community college, she said you blew past the associates degree. She had all the paperwork filled out for my transfer to Montclair State. I needed 33 credits for my BS, and all I did was take 1 class a semester, winter and summer sessions, and before I knew it I was done.

I hope there are people scratching their head here and saying "I can do that now!"

Just Do It (thank you Nike)

--Dan Gerard

Will,

How would you do it in a long game scenario...not a light switch, we are pivoting to AAS paramedics in 3...2...1... but rather over the course of time? King for a day, how would you like to see a degree program for paramedics, but in parallel with specialized training and education for those working in other complex spaces (CCT, community paramedicine, tactical medicine, occupational med., etc.).

Tell me where the diverge, tell me where they overlap...(Go White Sox)

-- -Dan Gerard

Our next commentator is Rob Lawrence, who is also an IJOP podcast section editor.

Rob is Rob is currently the Director of Strategic Implementation for PRO EMS and its educational arm, Prodigy EMS, in Cambridge, Massachusetts, He is also the current President of the Academy of International Mobile Healthcare Integration (AIMHI), and the Executive Director of the California Ambulance Association. He previously served as the Chief Operating Officer of the Richmond Ambulance Authority in Virginia and the Chief Operating Officer for Paramedics Plus in Alameda County, California. Prior to emigrating to the U.S. in 2008, Rob served as the COO for the East of England Ambulance Service in Suffolk County, England and as the Executive Director of Operations and Service Development for the East Anglian Ambulance NHS Trust.

Rob, given your broad experience in EMS operations and policy issues working at a national level with various professional associations, I'm curious what your take is on the debate.

-- -Mic

*Mic Gunderson, REMT-P (Ret.), FAEMS
Editor-In-Chief, International Journal of Paramedicine*

Good afternoon, all. Some great discussion points made today. Let me offer two responses. First me thoughts and followed by my report and commentary on the original debate that will shortly be published at EMS1.

In terms of my thoughts - well the UK, Australia, Norway and others, can't have got this wrong - they educate to the paramedic degree level and as graduate level practice has evolved in those countries, that has now led to such advanced practitioners as paramedic prescribers and other specialists. My recent conversations with the team at the top of the Royal College of Paramedics (International Paramedic Day 2025: Celebrating paramedics worldwide) are suggesting that degree education is going to take a further advanced step and consider courses that prepare the graduate student not for a life on the truck, but for a life of MIH.

Let's discuss MIH for a second. MIH isn't a TITLE... it's a LIST of requirements for successful operation Mobile, Integrated, Healthcare (delivery).

But this all brings me back to a degree in the US and here's the but

BUT

Is our system ready for it. It is certainly ready for the knowledge and therefore the ability to treat the patient with an assured level of academic competency, but that's not the but

BUT

The folk that say, a degree will confer higher wages and better terms and conditions are out of touch with the reality of US healthcare economics. the system is currently set up to deliver minimum income for maximum effort. We are fighting an administration (and it has been both administrations) that have singularly failed, and are failing to provide the cost of readiness (versus the cost of transport) to EMS systems, so we can't afford the levels of employee we have now. Mik asked me to take a policy view, well this is it. we can describe and define the cruise liner option of educational delivery when we cant even afford the oars for the rowboat.

BUT

We should continue to have and evolve this debate, its not about APOT ambulance offload times or response times its currently about affordability and expectation and the realist in me says we have to sort the pathway before we can walk down it!

My second offering is my suggested op ed for EMS1:

“Degrees, Debate, and Direction: Why This Debate Deserves Our Attention. IJOP Perspective on an associate degree should be required for entry level paramedics.”

Every now and then, a debate lands in front of the EMS community that deserves to be read slowly, listened to carefully, and reflected on honestly. The recent Socratic debate published by the International Journal of Paramedicine on whether an associate degree should be required for entry-level paramedics is one of those moments. I read IJOP and I listened to the debate on the YouTube channel, hosted by IJOP Editor in Chief Mic Gunderson, and came away encouraged, not because the issue was “settled,” but because it was treated with the seriousness and respect it deserves.

This was not a shouting match. It was not social media theater. It was a structured, thoughtful exploration of a question that sits at the heart of our professional identity: What should it take to become a paramedic?

Before we get into the content, it’s worth pausing on the method. This was a ‘Socratic’ debate, which is not a cage match about defeating the other side, but one of presenting reasoned arguments, exposing assumptions, and inviting the audience to think more deeply. Each side is given space to articulate its case fully, without interruption or rebuttal designed to score points. The goal here was understanding, not conquest, and that tone elevated the entire discussion.

The Argument for an associate degree

Advocating for an associate degree were Sean Caffrey, Gregg Margolis, Mike Thomas, and John Todaro. They framed their case around professional maturation and alignment with modern healthcare, arguing that paramedicine has evolved beyond its historical roots. Today’s paramedics are expected to assess undifferentiated patients, make autonomous clinical decisions, integrate with complex healthcare systems, and function as the front door to care. That level of responsibility, they contended, requires a deeper and more structured educational foundation.

Their argument emphasized that an associate degree is not about elitism or exclusion, but about equipping clinicians with essential competencies critical thinking, ethics, communication, research literacy, and clinical reasoning that support practice in environments where protocols alone are insufficient. As clinical complexity increases, so does the need for education that fosters judgment rather than rote compliance too.

They also pointed to professional trajectory. A degree-based entry pathway, they suggested, creates smoother transitions into leadership, education, community paramedicine, research, and system design, helping avoid educational dead ends and supporting long-term career development.

Notably, this team did not dismiss current workforce pressures. Instead, they challenged the profession to consider whether it is prepared to invest in the level of education that aligns with the expectations, responsibilities, and future direction it increasingly places on paramedics.

The Argument Against Mandating a degree.

The opposing team of Lewis Imperatrice and Ed Bauter did not argue against education. They argued against exclusion. Their concern was practical, grounded, and urgent. Mandating an associate degree risk narrowing the entry pipeline at a time when EMS is already stretched thin. Cost, access to colleges, time, geography, and life circumstances are real barriers particularly in rural systems and underserved communities. They reminded us that EMS has historically thrived on multiple pathways into the profession, and that excellent paramedics are built through quality instruction, mentorship, and experience not solely academic credentials.

Most powerfully, they asked an uncomfortable question: if we raise entry requirements without fixing pay, working conditions, and career sustainability, are we simply asking people to give more to a system that gives little back? That is not resistance to progress, it's just realism.

The International Lens

The debate also sits within a broader global context. In countries such as the UK, Australia, and Norway, graduate-level paramedic education bachelor's degrees rather than associate degrees has become increasingly common. These models reflect different healthcare structures, funding mechanisms, and professional histories.

Whether those systems offer lessons, warnings, or simply contrasts is a matter for thoughtful consideration and precisely the kind of reflection this debate invites.

No Verdict by Design

What makes this IJOP debate so valuable is that it does not tell the reader what to think. There is no declared winner, no attempt to "score points," no effort to dismantle the opposing view. Instead, it presents reasoned arguments side by side and trusts the profession to engage with them, and that may be its greatest contribution.

So rather than offering a verdict here, I would encourage you to do what this debate asks of us all: read it, listen to it, reflect on it and decide for yourself and then contribute to the debate via the NEMSMA list serve: <https://groups.google.com/g/nemsma> The jury, quite deliberately, is you.

In the words of panelist Greg Margolis – 'thank you for listening and for keeping an open mind.'

References:

Gunderson, M., Lee, E., Bauter, E., Caffrey, S., Imperatrice, L., Margolis, G., Thomas, M., & Todaro, J. (2026). Debate: An associate degree should be required for entry level paramedics. International Journal of Paramedicine. (13). 155-175. <https://doi.org/10.56068/YAZI5535>.

-- -Rob Lawrence

There are two camps here, one is the camp that knows the New York Mets is the greatest sports franchise ever, and those who are afraid to admit it....oh sorry I thought I was on the NYMETS Sports/Redditt...

Overall question for those who dont think that an associates degree is necessary/required for entry into the profession, what would it take from a profession stand point, in your opinion, for the field to say "this is it, we have to make an associates degree the minimum for entry into paramedicine, we have no other choice. What are those parameters, roadmarks, what are they?

For those who have a "RIDE OR DIE ASSOCIATES DEGREE PARAMEDIC" tattoo, what happens if we dont get there, how could you keep the profession afloat?

-- -Dan Gerard

Dan, always great to get your perspective on things and of course, much respect to a fellow NJ MICP (LOL).

I highly agree that education is vital to being a great EMS provider, I just have concerns about it being mandatory. On my ride home from work today I thought about something.

What about the following model:

- Prospective paramedics enroll into an associates program

- The certificate portion is front loaded and they take their NREMT or any state specific exam after they have completed the certificate requirement (roughly 12 - 18 months). They can then begin to work clinically as a paramedic, obtain experience, and set themselves up financially a bit better.

- They then continue their degree, completing the core courses, and other courses required to obtain their associates degree (roughly 6 - 9 additional months)

This results in a pathway to obtain their associates degree while also gaining real life experience, being better set up financially, and can better relate the degree content to their clinical practice.

-- -Louis Imperatrice

Louis, what if our certificate programs already meet or exceed the hour requirements of many Associate of Science programs and we are not awarding degrees?

Thank you, Daniel, for adding your experience. It helped me to re-frame my thought process slightly.

When you look at the numbers, this becomes clear. An EMT program typically requires 150 to 200 hours of education. Paramedic programs commonly require 1,200 to 1,800 hours of combined didactic, lab, clinical, and field internship time. When EMT training is included, most paramedics complete approximately 1,500 to over 2,000 total educational hours before initial licensure.

For comparison, an Associate of Science degree generally requires 60 credit hours, which translates to roughly 1,800 contact hours when you account for lecture, lab, and clinical time. Many allied health A.S. programs fall within this same range.

In other words, the academic load is already there. The difference is not rigor, time, or expectations. The difference is that we choose not to formally recognize this education with a degree.

If paramedic education meets associate-level standards in content and outcomes, then it should result in an associate degree. Anything else undervalues both the learner and the profession.

-- -Benjamin Proctor

Louis absolutely that works. To be honest there doesn't have to be a SINGLE pathway to achieve an associates degree, so any way you or anyone else can make it "work" is fine. The other important issue is that we don't leave those behind who cannot make the leap. We have to have a spot for certificate program paramedics as we transition from one point in time to another.

The other thing to consider is a new option. In the UK (if you play "God Save the King Rob Lawerence will stand at attention - <https://www.youtube.com/watch?v=Sqse9O9j3kg>), Australia, NZ, if you become a nurse, accountant, or teacher, your BS degree takes 3 years to complete. This is becoming an option, though limited, in the US. Let's take a line from Prince "Let's Go Crazy" ...what if there was a 3 year, 90 credit BS degree for paramedics?

I am really way ahead of myself here with that one, but there are a variety of different pathways to achieve an associates degree, and Louis your suggestion is excellent. I think the important thing is not to pigeonhole ourselves as we look to advance the profession.

-- -Dan Gerard

I wanted to respond to a few statements made in this thread related to paramedic education in the interest of clarity. I personally don't know which side I fall on. I am a paramedic program director for a community college based paramedic program that offers a certificate and an Associate of Applied Science in Paramedic.

The difference between a certificate and an AS/AAS is the general education courses. I could triple the number of hours of paramedic content in my curriculum and my students would still not qualify for the AAS without the general education courses. A degree signifies completion of a certain amount of general education. Most community college based paramedic programs are around 60 credit hours. 18-21 of those hours are in general education courses.

There are formulas for converting clock hours into credit hours. The typical lecture course ratio is 15 clock hours to 1 credit making a standard 3 credit lecture course about 45 clock hours. Labs are usually around 45 clock hours per credit. Clinical and field courses conversions are all over the place. My program is around 1200 clock hours and is 43 credits, 6 of which are Anatomy and Physiology. I am maxed out on credits and clock hours.

Someone mentioned a 90 hour degree. I think most healthcare disciplines would love this because we all have more content than we have time to teach. The only quibble I have with this is calling it a Bachelor's degree. This would probably mean moving programs from the 2 years schools to the 4 years schools. We do not want to do this. I believe we will be better treated by the 2 years schools, with a few exceptions.

The last issue I think it is important to clarify is that the academic program vs workforce program debate is not about the quality of the curriculum. Most of the rules that we follow in the academy are about student protection. The CAAHEP standards also are mostly about establishing a floor and providing protection for students. You can have a mediocre program that barely does it's job exist in a college and maintain programmatic accreditation. The key to having a quality program is the people running it and the help they get from their leadership. An EMS agency could have a phenomenal paramedic program if it chose to. The notion that college based program have better education or more critical thinking is not necessarily true.

I am enjoying this discussion.

-- Jeff Anderson, NRP
Bossier City, LA

Great comments Jeff

I think pathways for Paramedics to advance their education are the way to go.

-- Will Chapleau

I can agree with pathways for advancement and making degrees a reasonable way for personal and career development for Paramedics.

I don't agree with making degrees mandatory for entry level paramedics.

If we're looking to science to guide us on PreHospital education, we see that our best opportunity to have an impact on competence and patient care, is to address degradation of skills and knowledge. Aggressive continuing education driven by local medical direction and data can have a huge impact.

-- Will Chapleau

I absolutely agree that colleges should review the EMT and Paramedic Curricula and award credits to students that would apply to degree programs. I know Community Colleges are doing that here in Illinois

-- Will Chapleau

Dan,

To make medics better and to improve outcomes, I would first support vigorous Medical direction and CE tied to data. Science tells us that skill and knowledge degradation can be managed when tied to review and CE.

As for the degree programs, I would first push for uniform recognition of the EMT and Paramedic curricula by the Community College system in the form of college credits that can be applied to degree programs.

Rather than making Associate degree mandatory for entry level, I would like to see the workforce evolve to determine the value of the degree programs.

-- Will Chapleau

Louis and Ben make excellent points here.

Louis- you are describing what nursing is doing in NY here already. You must have an associates to become licensed as an RN and you have 10 years to become a BSN. I am not sure if other states are the same. Institutions are generally responsible for fully funding or partially funding their employee's education on the basis that they will need it to keep their jobs, though nursing seems to have as bad of attrition that we have in EMS, at least on the in-patient side. I am the first to resist comparing EMS to nursing but their pathway worked...

Of course, all of this is a funding issue but I think we are at a pivotal time in EMS where we have to be leaders and push for the advancement that we want.

To Ben's point, the certificate program at my local community colleges are 12-15 credits off from being an associates degree, making it a really obtainable goal. There is some state level funding where you can get an associates degree for free for in demand professions, paramedicine being one of them.

Certainly, this is not a one size fits all solution but it seems like everyone is interested in the profession advancing, just have to find a pathrway(s) to get there.

-- Jonathan Lindskoog

I'm going to introduce another esteemed colleague to our conversation, Margaret Keavney.

Margaret is a former EMT and paramedic with over 30 years of experience as a healthcare attorney. She has represented hospitals and health systems, as well as health insurers, physician practices and individual physicians, and has focused for the last 23 years on EMS providers. She obtained her law degree from Tulane as well as her MHA in health systems management. She served as General Counsel for the largest provider of EMS in New Jersey, and now works in private practice in New Jersey and Louisiana. Although her law practice is limited to states in which she is licensed, she is also a part of EMSAegis, a nationwide EMS consulting firm. She lectures on EMS legal and management issues. I should also mention that Margaret is a peer-reviewer for IJOP.

Margaret, what do you have to say about all of this – the formal debate as well as the ensuing discussions that have been taking place on the listserv?

-- Mic

Mic Gunderson, REMT-P (Ret.), FAEMS
Editor-In-Chief, International Journal of Paramedicine

Hi Mic, thanks for the introduction, and for inviting me to comment.

We've been having this discussion for a long time, and its great to see so many knowledgeable people weigh in on it.

I'm on Team Education. A college degree that is the result of challenging the student and requiring completion of work in fields other than EMS creates a paramedic who is a well-rounded person, with critical thinking skills and empathy. I support a college degree for anyone who wants one, no matter how they intend to use it.

However, the Pros of requiring an AS/AAS before becoming licensed as a paramedic are outweighed by the cons one of which is access. We will lose a lot of potential paramedics if we put this gate in place. Using a college degree to screen applicants will eliminate many people who would otherwise prove to be excellent paramedics.

Who are we talking about? People with learning disabilities. People who can't forgo 2 years of gainful employment to enroll in college. Those whose family members have never sought an education and for whom education seems irrelevant. All people who can succeed in an AS/AAS program with added support before and during the program. If we want this to work, the employers have to provide that support.

As Mike Thomas pointed out, "We shouldn't lower the bar because of barriers. We should break down the barriers so that everyone can reach the bar."

My question is "How do we break down those barriers?" It can be as simple as having EMS agencies sponsor EMT-employees who want to become paramedics and provide them with schedules and hours that allow them to take the classes and still maintain a job to cover their cost of living. It would include study sessions and help with all classes, not just the EMS ones. Are there sufficient EMS leaders with the educational background to do that? I think there are, but I will bet it varies greatly across the country.

Non-traditional students, the ones who would be otherwise deterred by the college requirement, may need additional support to believe in themselves to start such a time and resource consuming feat. It's not that they can't do it, but they may not have had a good experience with formal education before. A lot of this will depend on the EMT training they got.

I like the proposal from Benjamin Proctor: Paramedic practice under a restricted license until they achieve the degree which allows them a plenary license.

We have an opportunity for a natural experiment, if anyone can put this together. A few states are now requiring an associate's degree for licensure as a paramedic. Most do not. There are so many variables, that it may not be possible to isolate this one, but comparing before and after the change, or comparing paramedics from those states to those in no incense required states may show us the difference between the two, on a large scale. Of course, we will have to choose a meaningful data point(s) to compare. For those of you who do research, what is that? Is it outcomes?

I disagree with those who say adding a minimal requirement of a college degree will help us increase wages for paramedics. As Chris Cebollero pointed out, reimbursement reform comes first, and as long as Medicare considers ambulance service as a transport benefit, and not healthcare in its own right, there will not be enough reimbursement from any payor for employers to pay paramedics commensurate with their education and experience.

I am enjoying reading the comments from the original debaters and the posts of all the commenters, and learning

--Margaret Keavney

Coming in late to the conversation so some of this may have been addressed by others, so bear with me.

I fully support a degree for EMS providers, for several reasons:

1. *By virtue of adding two years of education, the EMS provider has an opportunity to mature for those additional two years. I recently read an article about someone who became the youngest paramedic and my first thought was does she have the maturity level to deal with both the situations she will find herself in – both clinically and socially.*
2. *Also the education, if the programs are set up in my version, the provider also takes math which enhances drug calculations, writing composition which enhances the ability to write a better patient care report, a business class to better understand how a business (the agency they work for) operates and what budgets mean, toss in a public health class and your getting close to a well-rounded education which theoretically includes better decision making skills.*
3. *Gives the provider the opportunity to see beyond the narrow world of EMS by interacting with people of different views, backgrounds and education levels in a controlled environment.*

I say this as a person who obtained a BS in EMS management and an MPH in Health Systems Administration, which allowed me to learn from people like Carl Post (Omaha Orange), Willie Krasner and other leaders in the industry.

-- Peter I. Dworsky, MPH, NRP, CEM, FACPE

Dan,

This is truly a great question...how do we get there. I think that it would need to be something phased in over time and incentivized such as nursing. When nursing transitioned from hospital based certificate programs to associates and now many requiring BSNs, it was phased over time. Grandfathered in nurses were exempt. Hospital's began requiring associates degree and bachelors degrees for new hire nurses, however there was and always has been an increased level of pay for nurses with varying degrees. ASN have a pay scale, with BSN nurses making more money and MSN nurses making even more.

We would need this model for EMS. We simply could not expect entry level paramedics to require an associates degree (many which are upwards of 20k these days) without some type of incentive for this. This also could be the pathway to pay parity and an overall system increase in compensation.

In the 1970s, the ANA recognized that there was a significant service gap between new graduate nursing skills and initial employment expectations of the hospitals. This led to the rise in the BSN programs which focused significantly on job preparedness at a higher level than a certificate nursing program, with significant focus on organization and integration into the healthcare system.

We must ask ourselves that same question with paramedics? For those of you in favor of associates degrees for entry level paramedics I ask this...Do you believe that a certificate paramedic is less equipped and prepared to meet your agencies entry level paramedic expectations. The answer should be no, and we can thank the NREMT for that. Certificate paramedics, associate paramedic, bachelors and masters degreed paramedics still all need to meet the same requirement of the NREMT to practice (or for the few states that have not yet adopted the NREMT, their specific requirements). And then can those entry level paramedics gain those necessary skills and education that comes with an associates degree within say, the first five years of their career. The job description reads "Minimum Qualifications: NREMT-P, must obtain Associates Degree within 5 years of hire." We then supplement this through tuition reimbursement, incentives, and an increase in pay when the milestone is met.

All of these ideas on both sides of the debate are amazing. It's minds and conversations like this that are going to advance our profession.

-- Louis Imperatrice

What nobody has commented on so far is the practical reasoning.

Whether you complete a degree or a certificate program, it is upper college-level learning which translates into ~45 college credits. The remainder of credits are a combination of entry-level English, Math, Social Science, and Anatomy and Physiology which are usually required by law. There are a lot of ways to translate certificates into appropriate college credit, but they usually have a time limit. By not requiring the AAS, either pre-licensure or within the first re-licensure cycle (so that they can start earning) new medics (who may be short-sighted and not prioritizing the degree which is needed for advancement in the ranks or transitioning to another career) will sometimes screw themselves for the sake of five classes that they are much better prepared for NOW than they will be 10 years from now. Investing in those 5 classes when you're young is analogous to forcing new employees into tithing into a 401k—they may not be thinking about it now, but a minimum investment when they are young means a much easier life later on.

The bigger question which is NOT discussed is how to transition paramedic education to the bachelor level. Most AAS programs limit majors to 30 credits of the 60-64 credit degree. It is already breaking the AAS model, which is why you frequently see colleges fudging credit for skills and clinical hours to stay within mandatory caps. Paramedic education is already 45 credits with the content expanding every year. The second problem is that paramedic education isn't lower-level (freshman/sophomore) content. It is, by definition higher-level content (junior/senior) because it teaches you how think and apply that thinking. Both of these problems are solved by moving paramedic education to the bachelor level, where paramedic education would have room to grow and could easily expand to 60 credits. It would also have the advantage of decompressing paramedic education a bit, which would allow more time for student to absorb more and engage in more reflective learning.

Most UK and AU bachelor programs have fit into this middle ground as three-year bachelor degree programs with limited non-Paramedicine content.

-- Scot Phelps

I wanted to chime in. I have over 40 years of EMS experience as a paramedic and EMS physician and have functioned as the lead paramedic instructor at a college program, state medical director and corporate CMO. I completed a degree in EMS Management from GWU that included a 2200 hour paramedic course that was 2 semesters and a summer term in length. I am speaking for myself.

This has been a very interesting read and good discussion. Most have argued for or against a degree from the perspective of our current EMS system design. Let's take a step back and ask if the current EMS model is sufficient for the needs of the healthcare system. The answer should be a resounding no as a "you call, we haul" mentality or system design doesn't work anymore. From capacity, costs, quality, patient satisfaction, transporting is not the answer for the majority of patients. EMS has served as the access point for many patients needing acute care and have no alternative to receive that care and systems have failed to evolve to address this change in use. Unfortunately, the current reimbursement model prevents EMS from doing the right thing for patients or the system in many cases. We are too "hospital-centric" with our care and need to move into a more system-based outpatient approach to patient care. We are too "public safety" focused and don't have enough health system integration.

From an education standpoint, our current model isn't adequate for the complexity of current patients we are seeing nor the non-emergent basis of most of our cases nor for the future vision of the paramedic practitioner. The base foundational educational experience must expand and strengthen including increased exposure to patients in ER, ICU, L&D, OR, primary care, etc. Whether its part of a degree or not, better and more clinical experience is necessary. I see too many paramedic students rotating in the ER and simply doing 12 leads and IVs but not pushing medications, not intubating, not performing full patient assessments, not rotating with the MD and discussing thought process and differential. We need to admit the paramedic education model is lacking in comparison to almost every other healthcare license including AT-C and RT. My wife had to do 3000 proctored hours after her Master's degree to get the LCSW and she's not even allowed to prescribe; my daughters have done nail tech school at 350 hours and esthetician school at 1800 hours; 3 FT semesters for medical lab science after full science prereq-

uisites including micro, A&P, bio and general chemistry; My barber had a 2000 hour requirement for licensure and I won't even outline the education/apprenticeship my electrician who did my remodel completed to get his journeyman's license.(8,0000 hours) Whether we are technicians or healthcare professionals, the hours don't match up within either discipline. Any degree discussion needs to focus on a clinical degree and not just any degree. For example, an RT AAS has over 60 credit hours of RT specific coursework after appropriate prerequisites - usually 24 hours, making the degree 5-6 semesters. I think the biggest challenge is creating these clinical opportunities since hospitals typically don't hire paramedics and aren't sure how to help with that clinical experience - do paramedics rotate with the nurses or with the techs or RTs or as I did, rotate with the medical students where present.

As EMS tries to redefine and fund itself with MIH, there are companies already partaking in a 5 billion dollar industry in the out-of-hospital space providing acute care services. They utilize telehealth physicians or PA/NPs in the home providing care and billing traditional evaluation and management and CPT codes. These companies are especially beneficial in States and systems that have been slow to adopt MIH from EMS agencies but also provide a higher level of care including point of care testing, radiology/ultrasound resources and full pharmacy medication delivery at the bedside. The hospital-at-home model is growing and shows good promise on providing care in the home for patients who would otherwise be hospitalized. As has been mentioned, the paramedic of the future is a MIH practitioner who does occasional life-threats.

I believe the future will require a further split between public safety and healthcare and that the "911" system will run the true life threats (1%) of calls and the rest will be addressed through the MIH practitioner through acute care response, telehealth, and case management to match the proper resources and level of care to the patient's need. Getting the state regulatory framework and local jurisdictions to see the vision will be a major challenge and reimbursement reform is an absolute necessity. In those States and systems slow to respond, the non-EMS MIH programs will continue to flourish, though the potential benefits on the 911 side will be missed. Public Safety agencies will continue to hire the PA/NP to provide a level of service and struggle with funding of this system.

It's going to take a tiered transition to get to this state but we need to have a unified vision of where we need to be and then work towards that through federal, state and healthcare partners.

-- Curtis Sandy, MD, FACEP, FAEMS

Sandy has it about right.

Stepping up to an Associates Degree is about patients, now and in the future. Other Paramedicine systems around the world have been moving in this direction for the last 20 years. It's a challenging journey, but progress is possible and extends well beyond this small, but important step.

Meanwhile, too many people in the U.S. find reasons to operate a model that was designed for the past. There is a pressing need for reform for the sake of patients, communities and your fantastic paramedics. Modernising your education requirements to be on par with other health professions is one element of modernisation that is doable. Other people on this discussion have made it clear that the move to an Associates Degree in Paramedicine is not that great. Just do it!

As Sandy said, if Paramedicine in the U.S. doesn't change, others will fill the gap and the opportunity will be lost.

-- Peter O'Meara

Professor of Paramedicine, Monash University

While I'm probably not familiar to most of you, I've been on this listserv for about 12 years. I rarely post (and, full disclosure, I don't always remember to pay my NEMSMA dues....Dont tell Pat), but I do read — and I've read this entire thread with real interest. It's been one of the more thoughtful and substantive discussions I've seen here in a long time.

I find myself agreeing with pieces from both sides, but it also reminds me of why I stepped back from national-level EMS conversations years ago. Too often, they felt whimsical and disconnected from reality. I'd attend Pinnacle or other national leadership conferences and hear, sometimes from the same presenter, "EMS is healthcare" in one session and "the healthcare reimbursement model is broken" in the next — without the presenter ever realizing that saying we are healthcare tethers us to a broken reimbursement model. It's always been clear to me that most of us agree the current fee-for-service transport model is flawed, yet we keep begging to stay a part of it.

For context, I'm a rural EMS director who has worked in fire-based and third-service systems, in both urban and frontier environments. From that perspective, there are a few commonly cited arguments in this debate that I struggle with.

1. "College education equals more competent providers."

In my experience, some of the least prepared EMT and AEMT applicants we see come directly from college-based programs. I would much rather hire an applicant who completed an agency-run EMT program embedded in real culture. Education matters — but preparation, mentorship, and context matter more than where the classroom happens to be located.

2. "Requiring a degree will improve pay and professional status."

Pay in EMS is wildly variable by region, system design, funding mechanism, and leadership. There are plenty of degree-required professions that earn less than paramedics, and plenty of non-degree roles that earn more. Suggesting that a degree is the common denominator that drives compensation misunderstands basic market forces and ignores the reimbursement and governance realities most EMS agencies operate under. If you want to improve pay and improve the professional status of your staff.....DO IT NOW!!!.... Nothing is stopping you, find the funds, cut admin staff, stop buying 600k ambulances and really invest in your people.

3. "Requiring a degree will improve patient outcomes."

This circles back to competence versus credentials. I have several highly educated paramedics with bachelor's degrees who are excellent at reading research papers and discussing the latest clinical trends, they are so educated that they can point out slight axis deviations.....But just recently on a call they couldn't locate the patient or successfully input GPS coordinates. No amount of academic knowledge or expanded scope compensates for fundamental operational failure. Outcomes depend on systems, training, experience, and execution — not degrees in isolation.

4. "Degree requirements will shrink the workforce."

Here I actually disagree with many on the opposing side. Every time we've raised standards and clearly defined expectations for excellence, we've attracted more and better candidates — not fewer. Workforce challenges are far more influenced by organizational culture, leadership, pay practices, and how people are treated than by entry requirements alone.

One additional point I keep coming back to is our tendency in EMS to try to be everything to everyone. We frequently point to international models — the UK, Australia, Canada — and there is absolutely value in learning from them. But those systems were built intentionally around their governance structures, funding mechanisms, workforce models, and national healthcare systems. The United States is fundamentally different. We operate under a fragmented mix of federal, state, county, municipal, fire-based, third-service, private, volunteer, and hospital-based systems, all layered on top of a reimbursement model that was never designed for modern EMS. Importing pieces of other countries' education or scope models without acknowledging those structural differences often leads to unrealistic expectations and policy proposals that don't translate operationally.

I realize that may sound like I'm arguing both sides — and I probably am. Because I absolutely believe in increasing education. I hold a bachelor's degree myself and, with some luck, will be starting a master's program soon. Education has real value.

But I don't think this is the right argument.

The real issue isn't whether paramedics should be more educated — it's how education, scope, reimbursement, system design, and workforce realities are aligned. Until we address those foundational pieces together, we'll keep circling the same debate without meaningfully moving the profession forward.

Appreciate the discussion and the many thoughtful perspectives shared here.

Respectfully,

-- Andy Smith
Executive Director, Grand County EMS

I was fortunate enough to work in a lot of different EMS systems across the country, with medics trained all around the world (I had UK & Aussie partners once, and hosted medics from Japan and other countries).

Personally, I would support a degree requirement for entry level paramedics (hopefully with some changes, stupid get ed requirements like a Microsoft Word class and generalized child psych).

However, a large, politically effective organization is against this for its members. The fairly large state I recieved my AEMT-CC and later brigade to AEMT-P (NREMT-P for non NY'ers) decided to eliminate the homegrown AEMT-CC level, stopped new cert classes, and said no new recents after X date. That was back in either the late 90's or early 2000's. Last September, AEMT-CC's could still recert, and the NYS Health Commissioner said the level stays for now. Pure politics.

I'm back living in upstate NY, and being in the capitol, I see a lot of the state press releases. Our lovely governor just vetoed two bills to stabilize EMS (NY's current governor hands out cash as door prizes for showing up). Post COVID, agencies in NY are increasingly consolidating at the county government level <https://www.osc.ny.gov/files/local-government/publications/pdf/ems-report-2024.pdf>. Claude's AI suggests significant percentages (38-53%, depending on locality:

Per Claude: Based on my search, the percentage of ambulance calls covered by Medicaid in New York State varies significantly by urban area. According to testimony from the United New York Ambulance Network (UNYAN) to the NY State Senate:

- Rochester: 53% of calls are to Medicaid recipients
- Albany: 42%
- Syracuse: 40%
- Buffalo: 38%

If the state, which is putting out 'EMS Crisis' memos, won't fund EMS through their own Medicaid, and won't remove an old, outdated certification level, what chance is there for increased education requirements? Buffalo, the highest medicaid percentage introduced AMR's 'Earn While You Learn' program, because AMR couldn't get EMT's to work for them, so they started their own EMT class.

Claude was also unable to return significant data for pay differentials both nationwide, and in NY. That suggests agencies might want degreed paramedics, they aren't paying a premium for degreed medics. If the market won't pay for it, why require it? No Pay, No Gain.....

Degree's mean little in today's job market.

My two cents is that the 'elite' or progressive agencies need to put degree requirements in place, and see how they fare. Bring back data.

Show us better outcomes with degreed medics, and advanced practice medics with bachelors or masters level degrees. Do medic's with FP-C or CCEMT-P credentials (I'm assuming they are still boutique certs that require additional education) have better or less expensive outcomes than EMT-P's? Do current degreed medics have better outcomes?

Last, I'd look at the international programs that require degrees. Some do, many don't. How do we translate?

Given the US's current take on college degree's, I don't think it's a sustainable option today. My take would be to add on to EMT-P, create at least one flavor of 'advanced practice' at a degree level. Prove the model, then build.

Given the number of EMS agencies I see in the news struggling, closing and merging, perhaps we triage first.

As much as I'd like to wave my magic wand, I can't. EMS is local. Always was, always will be.

NY's BSN law hasn't moved outcomes much, but there are a ton more strikes over conditions and pay since it was passed.

-- Curtis Sandy, MD, FACEP, FAEMS

Catching up here as there has been so many in depth and great conversions added to this thread!

Andy, I could not agree more than increased degree requirements will not improve pay within EMS. You hit the nail on the head when you said that pay varies widely by region. Just looking at this on it's surface, here in NJ, the starting rate for a day 1, zero experience paramedic is an average of \$37.00/hr with many medics making close to if not over \$100k a year after about ten years of service. I personally know a paramedic with 20 years of experience, full time, with one overtime shift a week (48 hours per week) made over \$125k last year. We do not have an college level degree requirements for paramedics in NJ.

Go across the bridge into Pennsylvania and the average wage band for a paramedic is \$24 - 36.00/hour. Head further out west and it's even less. In Texas for example, you have paramedics at some agencies starting at \$19.00 an hour!

I also see postings on job sites for leadership positions. I recently came across a job posting for an EMS Educational Program director, with a minimum qualification of a masters degree with a salary range of \$88 - 94,000 and an EMS Operations Director position in a large metropolitan area in the midwest with a salary range of \$75 - 100k. This is embarrassing. Asking someone to have a masters degree, be responsible for an entire college paramedic program, and paying them in this range is sickening.

On the contrary, the average Director of Nursing for a hospital system is making \$150k or more.. Until the health-care systems across the country, the municipalities, and the government entities recognize the importance, and the value of EMS, we will never see pay be where it should be, and a degree requirement is simply not going to change this at all.

There is a lot of talk in this thread about college degrees aiding and improving critical decision making, higher level thought process, etc. However I tend to disagree and here's why:

Looking at the curriculum for an associates degree program at a local community college where I live who offers paramedic associates degrees, as several people have mentioned, the non-paramedic courses typically include your basic, low level, college courses such as English Composition, A & P (which typically is required in certificate programs as well), Intro to psychology (maybe), and Lower level math classes such as Statistics or Basic College math.

While I am sure that there is some benefit to these classes for the paramedic, will these lower level college courses really do what we are asking them to do, increase critical decision making and thought process? In my opinion, no. These are not your third or fourth year college courses as I believe Scot Phelps mentioned (maybe someone else).

Many individuals actually take these courses in high school to begin with, well before considering paramedic education.

I agree with everyone here who says that the critical decision making necessary for paramedics comes from experience. Specifically, the empathy and patient advocacy required to be a great paramedic. This comes from being on actual calls, continuing education classes, and more important than anything else - MENTORSHIP! I'm sure we all know highly educated individuals with post nominals longer than their actual name, who lack critical thinking, lack empathy, lack the ability to understand and navigate human factors - no college course can guarantee this.

-- -Louis Imperatrice

Just a couple of points to consider.

The law of supply and demand would suggest that less paramedics entering the workforce, resulting in a decrease in the supply of labor, would cause the price of labor (wages) to occur. We saw the results of that phenomenon quite profoundly when the supply of paramedics declined substantially after the COVID debacle. Since I believe a degree requirement would decrease the supply, one could expect that supply would decrease and salaries would increase.

Remember, too, that the market will pay only what it must. If it can hire a director of EMS education or a college faculty member for \$60K, they will do so. If that salary is not enough for qualified individuals, don't take the position. The ego and resume boost won't make up for it, and it will hold everybody else back.

Second - on the salary question. A Director of Nursing (usually a VP around here) does make a nice chunk of change - but at the local hospitals, the Chief Nursing Officer is responsible for an average of 3,500 nursing staff, plus nursing assistants, and perhaps 18-24 nursing units (with managers, clerical staff, etc.). Not many EMS directors have that scope of responsibility.

Just thoughts for your consideration.

-- -Skip Kirkwood

As we continue discussion on the debate proposition, I'd like to introduce the authors of a paper that was published at the same time as the debate. The paper was a narrative literature review entitled, "Bachelor's degree as entry-to-practice: A literature review of paramedicine and other health professions." The authors were Cameron Rimstad from MacEwan University in Edmonton, Alberta, Canada; Jasmine Kayanja and Sidney Newman from the University of Alberta in Edmonton; and Efreem Violato from the Centre for Advanced Medical Simulation at the Northern Alberta Institute of Technology, also in Edmonton. Here is a link to their paper: <https://international-journalofparamedicine.com/index.php/ijop/article/view/3528>.

In contrast to the debate proposition on an associate degree requirement for entry level paramedics, they were looking at a bachelor's degree requirement. I think this reflects on how some countries have already seen the value from associates degrees and are now considering or have already elevated the requirements. I've asked these authors to reflect on the arguments made in the debate as well as the posts here in this discussion to see how their findings may support or refute points that have been made.

Joining us now in the discussion is Efreem Violato, PhD, the senior author for the literature review paper. Welcome Dr. Violato. What do make of the debate and comments so far?

-- -Mic

Mic Gunderson, REMT-P (Ret.), FAEMS
Editor-In-Chief, International Journal of Paramedicine

Efrem a study linking better care would be great, it might be in the best interest to see what other professions have done, what the metrics are that they utilized, and then do our own comparison.

-- -Daniel R. Gerard, MS, RN, NRP

I agree, and that is the big challenge for education, and generally, there is a lack of success in linking education/ changes in education to actual care and better outcomes. There is research looking at some higher-level outcomes, such as we saw in the literature review, where hospitals with higher levels of degree-educated nurses saw more positive patient outcomes, but that research does not control for the multitude of covariates related to organizational outcomes. There is a recent paper (a couple of years old now) by Varpio and Sherbino, that discusses the difficulty in linking education and care. They make some suggestions about this (which I do not necessarily agree with) "First, we suggest that HPE research's history of endorsing a linear and causal association ethos has driven its quest to connect education to patient outcomes. To ensure the sustainability of HPE scholarship, we must deconstruct and disempower patient outcomes as one of HPE's god-terms, as the pinnacle goal of educational activities." Demonstrating causality, bestowing honours, and contributing to the arms race: Threats to the sustainability of HPE research - PubMed

Point being, it may be difficult to adopt metrics from other areas, though I do think this can be done at a higher level where even an economic analysis that examines care costs in areas where changes to the type of education could be insightful. The other possibility could be to go down to the individual level and follow randomly selected subsets of practitioners with different levels of education and examine patient outcomes related to their practice. Though this also poses many logistical and ethical barriers.

While it may be difficult to make the link, I disagree with Varpio and Sherbino, and I think it can be done; it just requires some creativity in how patient outcomes and education are measured, and the actual hard work of gathering the data.

-- -Efrem Violato

Here is another paper that was just published today that deals with the same types of issues and lack of evidence from current practices (in medicine) from the accreditation/regulatory perspective Accreditation science—the need for evidence to guide the global expansion of medical education accreditation: Medical Teacher: Vol 0, No 0 - Get Access

The question about how we train health professionals and the direct link to patient outcomes is the "big question" in health professions education. Though again I would say (and the authors of the Accreditation science article may agree), is not intractable and without any forms of evidence. At least if we base our educational practices on sound educational theory, we can infer that the benefits conferred through better learning will have some positive impact on patient care, e.g., developing better critical thinking and clinical reasoning skills will produce trainees and practitioners who are capable of providing better care.

-- -Efrem Violato

I've addressed this more at the baccalaureate level, because our AS or certificate in EMS, or whatever it is called, already has sufficient credits to exceed what is required for an associate degree. I believe that our colleague Scot Phelps has an excellent paper on that issue. (If I've got the wrong person, apologize in advance).

There are a number of studies about the quality of care rendered by ASN, Diploma, and BSN nurses. They may be a bit difficult to find, as the "mandatory BSN" movement ran (as far as I can remember) from the mid-1970s until the late 1980s, so they may not be easily found on line, except in some serious nursing or health care academic libraries. But my recollection is that they did establish a positive impact on patient care. And additionally (on the

subject discussed in (2) below, the move clearly pushed a “better salaries, better career options, and all that comes in the 30 years after.”

There really are several discrete questions to answer. As these are longitudinal studies (probably requiring over a decade of data for each question), it could take a while. And we need many more paramedic academicians and researchers to peel this onion.

1. What is the impact of a BSPm on quality of patient care? Note that this can NOT be done with today’s “take an associate paramedic or BS-EMS program and graft on enough general ed courses to award some sort of bachelors degree - it will require a curriculum that is focused on clinical care, not “fleshed out” with introductory courses in educational theory or business management. We’d need to look closely at the paramedic degree programs in Canada, Ireland, England, and Australia.

2. What is the impact of a degree (ASPm or BSPm) on the workforce, job market, and salaries? Many discussants say, “not much.” Upon further exploration, the answers usually are “I know X and Y, they have degrees, and they get paid more than me.” Wrong question and wrong answer. This is looking at a micro sample and drawing macro conclusions. The question must be, “When the degree is the minimum entry standard, what is the impact on workforce, salaries, etc. The other response is, “Medicare won’t pay any more, so why bother?” That is looking at the cart before the horse, as well as assuming that the “fee for transport” model is the only option available. Staying inside today’s box shuts down the discussion prematurely.

I would submit the following for consideration:

a. The imposition of a degree requirement, particularly a BSPm degree, would reduce the size of the workforce, as there would be fewer newly graduated paramedics in any given year. The law of supply and demand applies to the paramedic job market as well. Quantity of paramedics goes down, price goes up. Again, at a macro level and spread over a decade - not at one agency in two years.

b. In addition to (a), EMS/ambulance agencies would be forced to seriously explore different financial models, and look seriously about career options, both horizontal and vertical, for paramedic personnel.

Pardon the length. There is so much more to consider, but this is food enough for one, perhaps several, meals. Although I am thoroughly enjoying retirement, I still hope for full and rewarding careers for the profession that I so enjoyed.

-- Skip Kirkwood

I’m really appreciating the depth and tone of this thread. It’s a sign we’re taking our profession seriously enough to wrestle with the hard questions.

From my lens, I don’t think Skip’s macro view and Efrem’s education science view are at odds. They’re describing different parts of the same elephant.

A few quick points:

1. We keep answering the wrong wage question. The issue isn’t whether one individual medic with a degree gets paid more today. The real question is: when a degree becomes the entry standard over time, what happens to workforce structure, career mobility, and bargaining power? Other health professions didn’t see a clean, immediate “degree = raise” relationship either. They saw role differentiation and market power evolve over decades.

2. Outcomes linkage is hard, but not a reason to stand still. Health professions education struggles to draw straight lines from “education change” to “patient outcome.” That doesn’t make education irrelevant; it means we need better models than transport-era metrics. If we hold paramedicine to a proof standard that no one else has cleanly met, we’ll always talk ourselves into inertia.

3. "Bolt-on degrees" is a fair critique. If a bachelor's is just a certificate program plus random gen ed, people are right to be skeptical. A meaningful BS Paramedicine has to be intentionally built around clinical reasoning, systems thinking, ethics, research literacy, and longitudinal care, not padded with filler.

4. Access and rural reality matter. Any serious degree conversation has to include funded pathways, credit for prior learning, transitional models, and multiple on-ramps. I do not equate professionalization with exclusion. We need ladders, not cliffs.

5. Degrees aren't only about pay. They're about legitimacy, portability, influence, and being able to define our own scope instead of having it defined for us. Paramedicine's vulnerability to outdated reimbursement and regulatory stagnation is not separate from how we educate and credential the workforce.

My take: this probably isn't a single mandate flipped overnight. It's a phased strategy—build clinically rigorous degree pathways, align accreditation and competencies with where practice is going, expand advanced practice roles with clear value, and collect better data as we go. In other words, build the profession we want to measure, rather than waiting for perfect evidence before we allow it to exist.

Respectfully,

-- Nick Nudell, PhD(c), MS, MPhil, NRP, WP-C
Paramedic Scientist, The Paramedic Foundation, a 501(c)3 non-profit charity

Thank you to Skip and Nick both for those comments.

I think Nick did a very good job of synthesizing and summarizing things. I think points 1 and 5 are particularly interesting especially from a professionalization and labour perspective.

Being from Canada I lack the American context, but from what I have seen here, I think that the transition to a degree would increase the perceptions and respect for paramedicine. While paramedicine is a respected profession in general, from within and without healthcare, I do not think it receives the same level of respect and recognition as medicine or nursing (with the same being true for other non medicine and nursing professions). The perception still exists of "ambulance drivers" or "you call we haul."

Whether appropriate or not, having a degree will, to some extent, increase the prestige and respect of the profession. Along with this will be increased bargaining power and the ability to negotiate for better wages and working conditions. With improvements in wages and working conditions, along with general respect for the profession, the job will be perceived more positively and will attract more people to the profession, with increased competition leading to a higher quality of students who are more suited for the profession.

With the shorter program length, we see many students who enter the program, complete their training at a minimal level, and then leave the profession shortly after as they decide that it is not really for them. I have heard from many people involved in clinical education that a degree may be positive in terms of selection standards or "gate-keeping."

The counter to this, as has been noted, is that some people who would be highly qualified and make excellent paramedics will not enter the profession because the degree program is a barrier for various reasons.

-- Efreem Violato

This is an absolutely fantastic discussion, and thanks to Mic for putting it together. We're going to have a very hard time mandating any sort of a degree requirement in the near future, although I am a staunch supporter that a paramedic should be at minimum an associate's degree.

From my perspective, I think the discussion of a Bachelors requirement should not be focused on the paramedic, but rather should focus on more advanced designations, especially surrounding critical care and community (i.e. primary care) paramedics.

I have taken and taught several community paramedicine classes and was literally pulling textbooks from medical school to refresh my memory on the amount of physiology, pharmacology and pathophysiology that emergency medicine has made me forget through the years. There is so much additional knowledge base (and completely different management approaches) needed for those two disciplines that there is a strong argument for expanded education right now that is not being met with the limited hours of current certificate programs.

Tiering an associate's degree in 'general' paramedicine with these 'subspecialties' of paramedicine also can set a precedent for the development of further specialization in EMS, including the incorporation of EMS Medicine within higher level advanced practice provider programs--specific to or providing emphasis on the prehospital environment. This would also soften the compensation arguments around a bachelor's degree as we have established higher reimbursement rates with Specialty Care Transport codes and are hopefully getting closer to a separate reimbursement structure for CP/MIH.

Again, just a couple of thoughts to throw out for the group to eviscerate!

-- Todd Heffern, MD, FACEP, FAEMS, NRP
EMS Medical Director