

Anesthesia Tech Pipeline Program

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The Challenge:

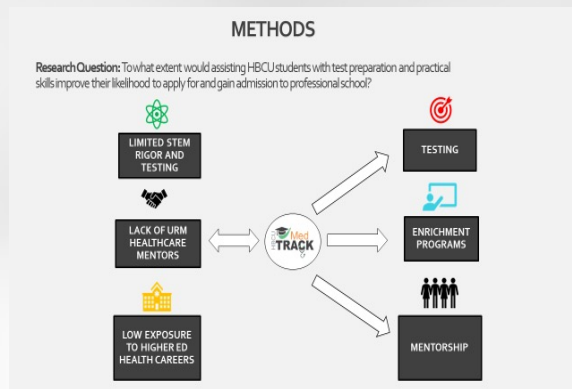
- Workforce diversity is an important problem for all of medicine, but is particularly salient for fields, such as anesthesiology, where trust must be established within minutes.
- Fewer than 4% of practicing anesthesiologists are African American or Black, and fewer than 3% are Latinx.
- The UAMS College of Medicine struggles to enroll URM students, with low MCAT scores and insufficient clinical exposure being the most common barriers for students.

The Opportunity:

- Anesthesia technology is a licensed profession, but most departments are staffed with unlicensed anesthesia technicians.
- The operating room offers many real-world examples of concepts that pre-medical students need to know for the MCAT examination (e.g., gas physics and oxygen transport).
- A program that blends paid clinical experience as an anesthesia technician, education targeting student and professional success, rigorous MCAT preparation, exposure to research, and mentorship for entry to COM and other professional schools would replicate for pre-medical students the educational models in place at the COM and GME levels.

METHODS

UAMS HBCU Med Track is an existing program funded by HRSA where UAMS partners with University of Arkansas Pine Bluff and Philander Smith College to open opportunities for undergraduate students who wish to pursue careers in the health professions.



The Anesthesia Tech Pipeline Program was opened in AY2021 as the only integrated enrichment MedTrack program that combines mentorship, education, research, and paid clinical experience for college graduates aiming to apply to medical school.

Four students were selected for the inaugural class. In addition to full time clinical work as anesthesia technicians, the students participated in coaching sessions with UAMS faculty, a professionalism series, a 16 week long MCAT prep course (January – June 2021), and research. Six first year medical students shared their paths into medical school in the fall. The students completed a systematic review of publications that describe post-baccalaureate programs, and found no examples of programs that blend education and research with paid clinical work.

Three new students were enrolled in the 2021-2022 class. The clinical commitment was reduced from 36 to 20 hours per week to increase capacity for MCAT preparation and research while preserving pay and benefits eligibility. The longitudinal professionalism series will be deployed in partnership with the institutional post-baccalaureate program.



RESULTS

During AY 2021, three of the students were named as the Anesthesia Technicians of the Month, two students applied to medical school, and both were accepted into the Medical Scholars in Public Health Program, the institutional post-baccalaureate program that offers continued mentorship into the COM. One of the four students has remained in the Department of Anesthesiology for a second year in the Anesthesia Tech Pipeline program, with a plan to apply to medical school this coming year. Of the three new students, one will apply to medical school in 2021, and two will focus on MCAT preparation and applications in 2022.

NEXT STEPS

- Increase alignment with the institutional post-baccalaureate program with a shared professionalism series.
- Identify additional departments where a similar program could be implemented at UAMS.
- Share the program with academic departments nationally.

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