

In October of 2018, The White House National Science and Technology Council (NSTC) released a request seeking public comment on the Draft Report of the Fast Track Action Committee (FTAC) on Health Science and Technology Response to the Opioid Crisis.

The Society for Academic Emergency Medicine (SAEM) and the American College of Emergency Physicians (ACEP) Research Committees each have a process in place designed to rapidly respond to such requests. An *ad hoc* task force composed of committee members from both organizations and experienced investigators on pain and opioid research were recruited and contributed their recommendations to this response and had the opportunity to review the report and contribute to the summary recommendations below.

Prevention of Opioid Addiction:

- Need: **Research to better elucidate to how optimize the dose, duration, and quantity of initial prescriptions to reduce unused opioid medication.** Much recent research has demonstrated that a large volume of opioid pills remain unused after surgery or other elective procedures. These unused pills increase the risk of misuse by patients and their families and friends, as well as that of childhood poisoning.
- Need: **Identification and targeting of clinical settings where opioid stewardship remains problematic** While Emergency Departments (EDs) have been an important focus for exploring pain treatment practices and targeting opioid stewardship, other clinical situations (such as surgical and post-procedural care) have significant opportunities to develop and use tools to reduce overprescribing of opioids.
- Need: **Effectiveness and economic research on understanding the impact of abuse deterrent opioid formulations on reducing opioid use disorder, overdose, and misuse.** Currently there are little data to support the benefits of these formulations and many emerging economic and clinical concerns.

Pain Management:

- Need: **Research to characterize, better understand and prevent hyperalgesia** (increased pain after chronic opioid use). Hyperalgesia is currently poorly defined in humans. Ways to mitigate the effects of hyperalgesia to both prevent increased pain and the need for higher doses of opioids will be important in preventing the transition from acute to chronic pain.
- Need: **Research to improve the safety and utility of high potency opioids** like sublingual fentanyl and sufentanil. Researchers and regulators must critically evaluate both the risk:benefit ratio of this class of medications and the efficacy of the Risk Evaluation And Mitigation Strategies (REMS) program for

these medications. For example, should training for high potency opioids be required as it is for buprenorphine, a much safer drug in every dimension?

- Need: **Effectiveness and economic research comparing non-opioid and non-medication pain treatments for acute and chronic pain.**
- Need: **Research to identify the best practices regarding how to *populate* PDMP data (including overdose history, pain treatment contracts, methadone treatment).**
- Need: **Research to identify the best practices for use of PDMP data in all clinical settings.**
- Need: **Implementation research focused to determine best practices in various circumstances regarding opioid stewardship for both acute and chronic pain management.**
- Need: **Evaluation of the clinical equipoise of existing analgesics and means of effective communication of risk/benefits to patients/providers.**

Treatment of Opioid Addiction and Withdrawal:

- Need: **Measure the impact of various payer programs** on improving the adoption of evidence-based opioid use disorder (OUD) treatment and exclusion of non-evidence based treatment.
- Need: **Research on the impact of Medicaid expansion** on access to treatment and outcomes for persons with opioid use disorder.
- Need: **Research on emergency department approaches to OUD and opioid withdrawal including: 1) buprenorphine administration and induction, and 2) warm handoffs to evidence based treatment programs and primary care settings.**
- Need: **Research to measure the impact of emergency department treatment of opioid withdrawal with buprenorphine on subsequent medical treatment** for conditions such as pneumonia, endocarditis, or cellulitis whether directly associated with opioid use or unrelated (with outcomes including leaving against medical advice and linkage to evidence based treatment).
- Need: **Model and test the impact of shortening or eliminating the DATA 2000 waiver (x-waver) training required to prescribe buprenorphine for emergency physicians and other practitioners.** Assessment can include participation rates in training, changes in knowledge gaps, and actual prescribing practices at an individual or public health level.
- Need: **Model and test new approaches to initiating medication assistant treatment (MAT) in emergency department settings including telemedicine support, elimination of prior authorizations, and facilitation of billing for screening and treatment in acute care settings.**
- Need: **Model and evaluate the effectiveness of overdose prevention sites (safe consumption facilities) for people who fail or are not ready for treatment.**
- Need: **Rapid surveillance and reporting of illicit opioid exposures including expanding the availability of real-time testing of patients with opioid overdose.**

- **Need: Ongoing research to define the optimal mechanism to prioritize access to ongoing/subsequent care in emergency departments such as with the use of peer navigators, warm handoffs, or on-site addiction counselors.**
- **Need: Research to identify cost effectiveness and overall value of various program models to maximize sustainability and opportunities to scale up clinically effective programs and treatments.**

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