Wake EMS System Peer Review May 2023

MAT protocol

WAKE COUNTY
NORTH CAROLINA

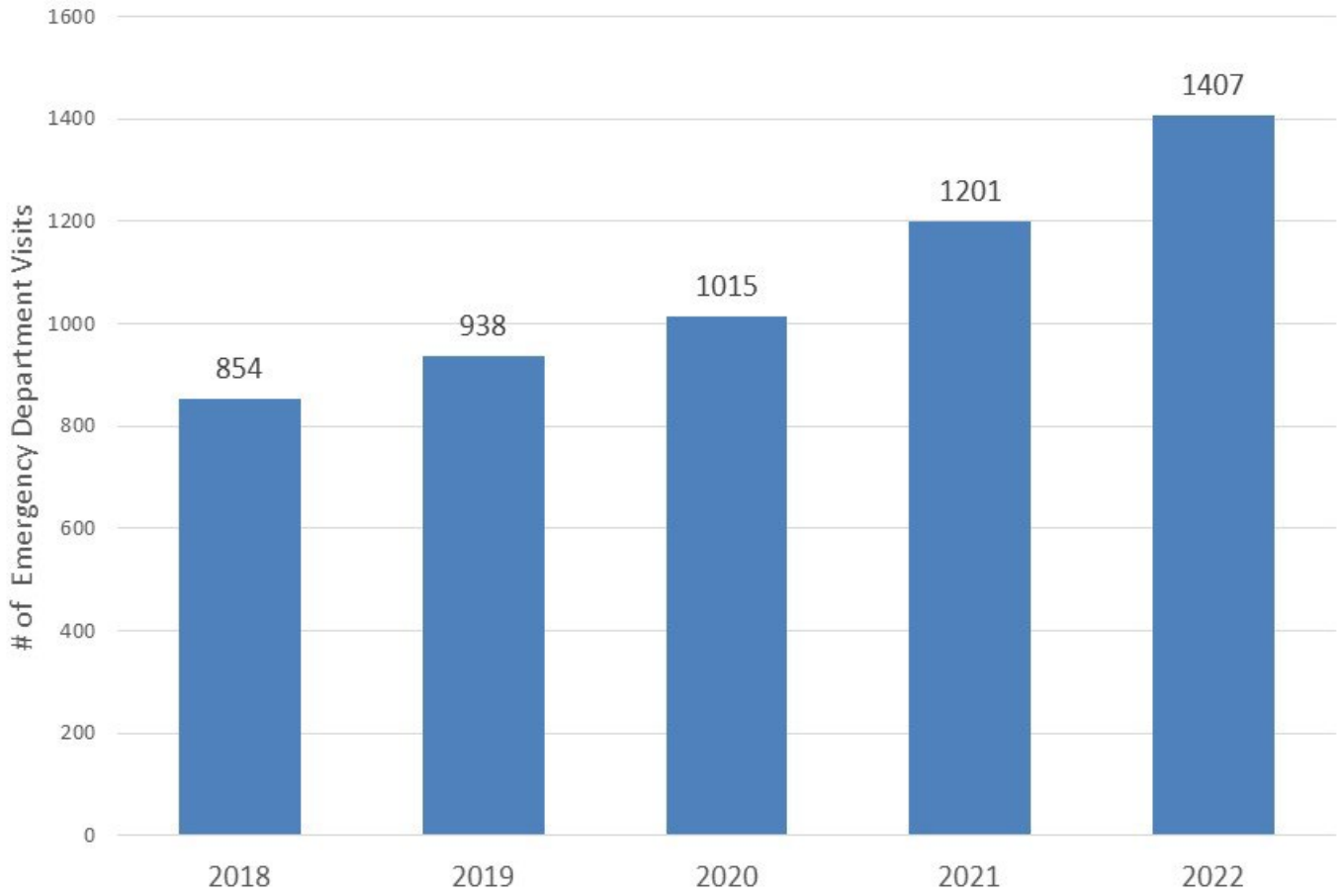
Medication-Assisted Treatment (MAT)

- **Who, what, when, where, why?**
  - Epidemiology of Overdose in Wake County
    - Thank you Katie LaWall, MPH – Wake County HHS
  - What is MAT and why would we do it?
  - The plan for us

BLUF

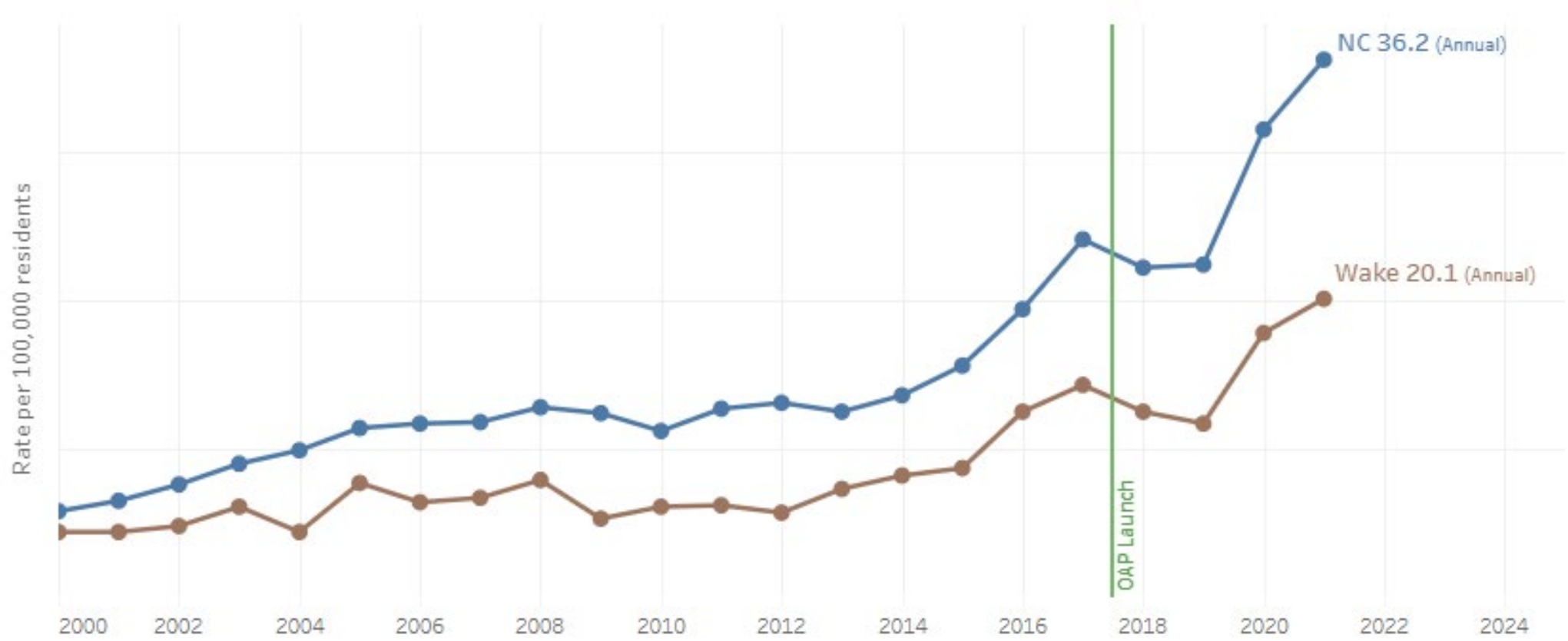
- MAT saves lives
- Wake EMS will start buprenorphine induction in the field
- Southlight is our current outpatient partner
- Not reinventing the wheel
- Work in progress → expect PDSA

Unintentional or Undetermined Intent Medication or Drug Overdose Emergency Department (ED) Visits, Wake County, 2018-2022



Source: NC DETECT, 01/25/2023

Overdose Death Rates, NC vs. Wake County, 2000-2021

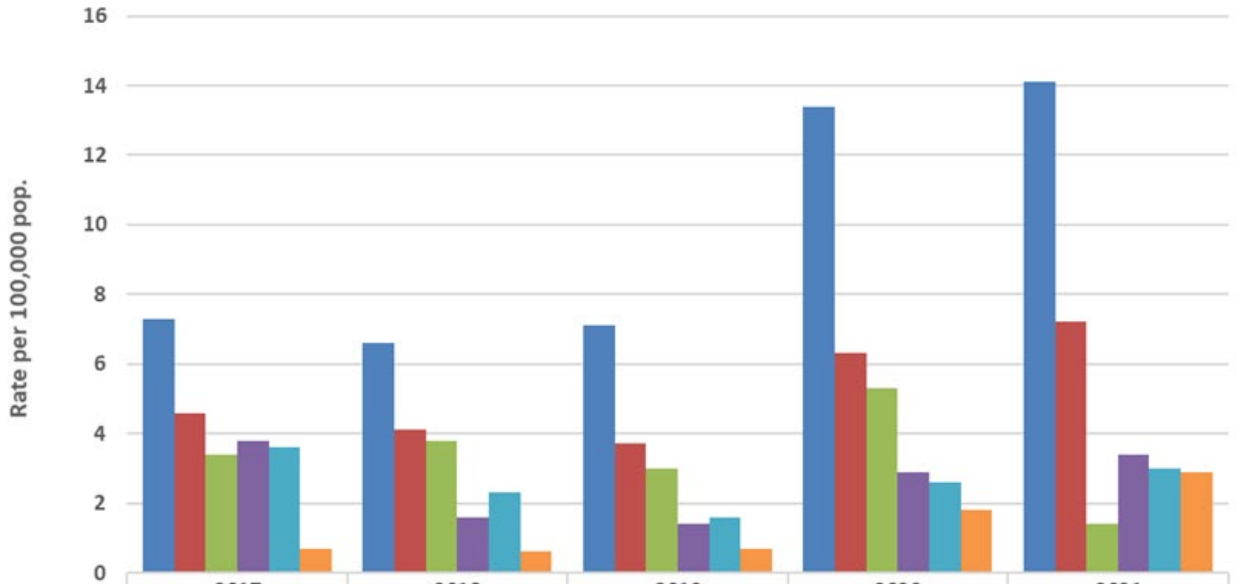


OAP = NC DHHS Opioid Action Plan

Source: NC DHHS Opioid and Substance Use Action Plan Data Dashboard

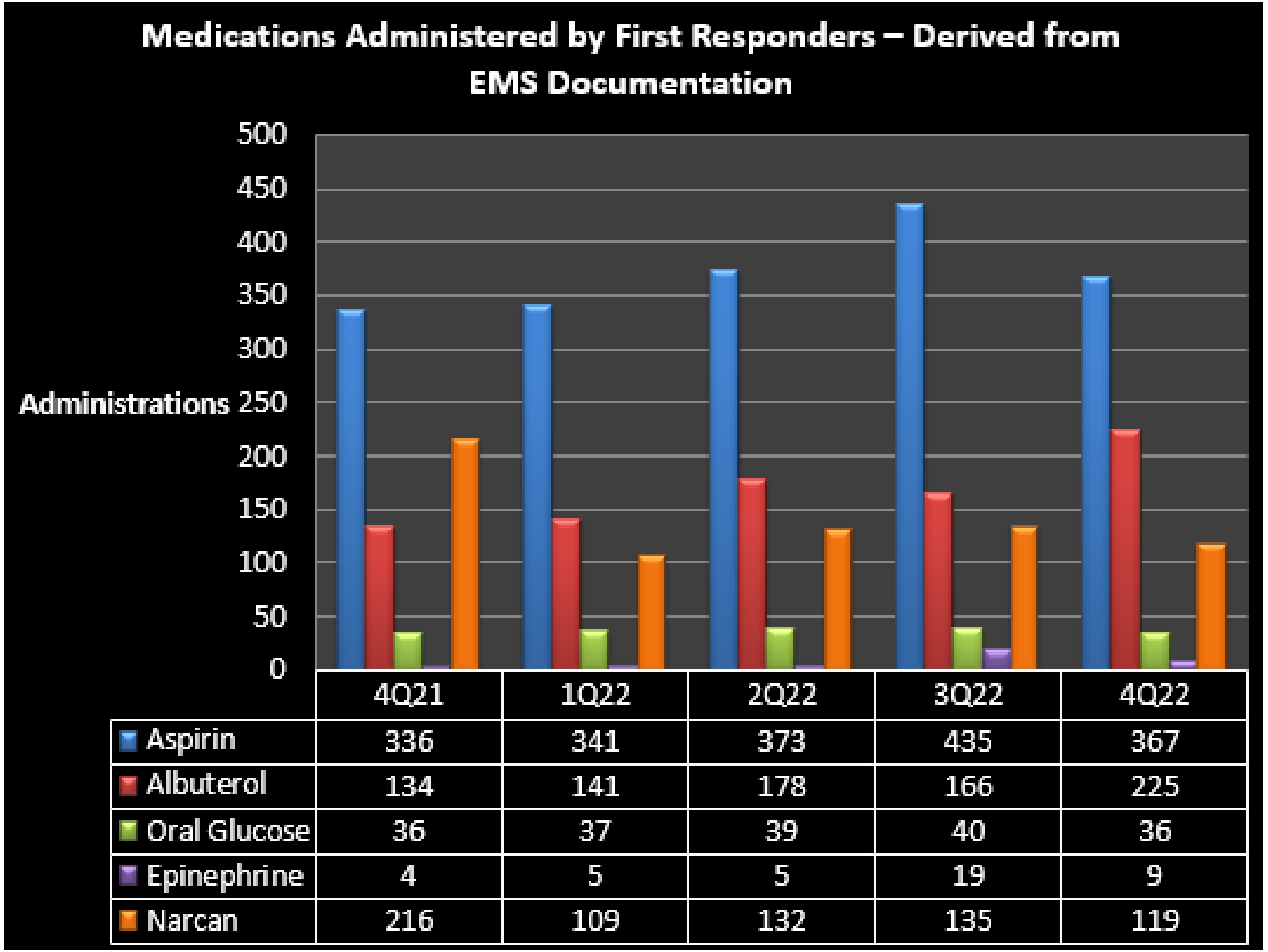
Overdose Death Rates by Substance, Wake County, 2017 - 2021

Figure 4: Unintentional Drug Overdose Death Rates by Drug Type, Wake County, 2017 - 2021



	2017	2018	2019	2020	2021
Other Synthetic Narcotics (including fentanyl)	7.3	6.6	7.1	13.4	14.1
Cocaine	4.6	4.1	3.7	6.3	7.2
Heroin	3.4	3.8	3	5.3	1.4
Commonly Prescribed Opioids	3.8	1.6	1.4	2.9	3.4
Benzodiazepines	3.6	2.3	1.6	2.6	3
Psychostimulants	0.7	0.6	0.7	1.8	2.9

Source: NC DHHS DPH, Injury and Violence Prevention Branch, 11/23/22; 2021 death data is provisional.



	4Q21	1Q22	2Q22	3Q22	4Q22
Aspirin	336	341	373	435	367
Albuterol	134	141	178	166	225
Oral Glucose	36	37	39	40	36
Epinephrine	4	5	5	19	9
Narcan	216	109	132	135	119

- n= 495 Narcan administrations by FRs in 2022
- More than once a day!

Take home from the Epi data

- Overdose rates are rising
- Overdose DEATHS are rising
- A LOT of Narcan is being given by FR and EMS
- “only” handing out Narcan isn’t cutting it.

What is MAT?

- **Medication Assisted Treatment for Opiate Use Disorder (OUD) = use of medications, along with counseling and behavioral therapies, to treat OUD**
  - Not "going cold turkey"
  - Includes methadone, buprenorphine products
  - A form of "harm reduction"

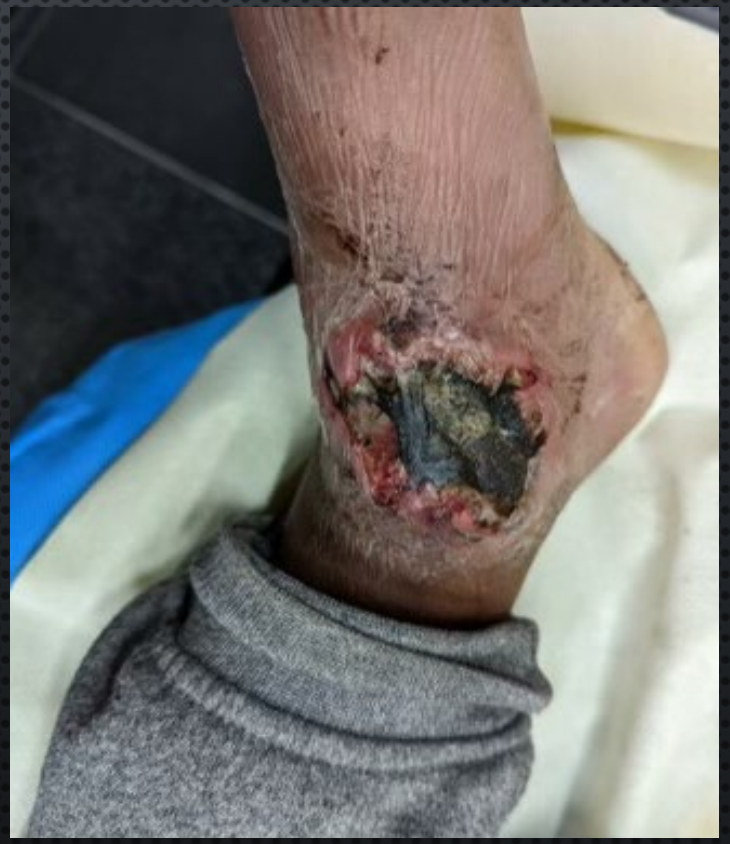
What is MAT?

- Harm reduction: ***Reducing*** negative consequences of dangerous behaviors or practices (e.g. drug/etoh misuse) by incorporating a spectrum of strategies- safer techniques, managed use, abstinence…

WHAT IS HARM REDUCTION?

" YOU CAN'T HELP SOMEONE IF THEY ARE DEAD"

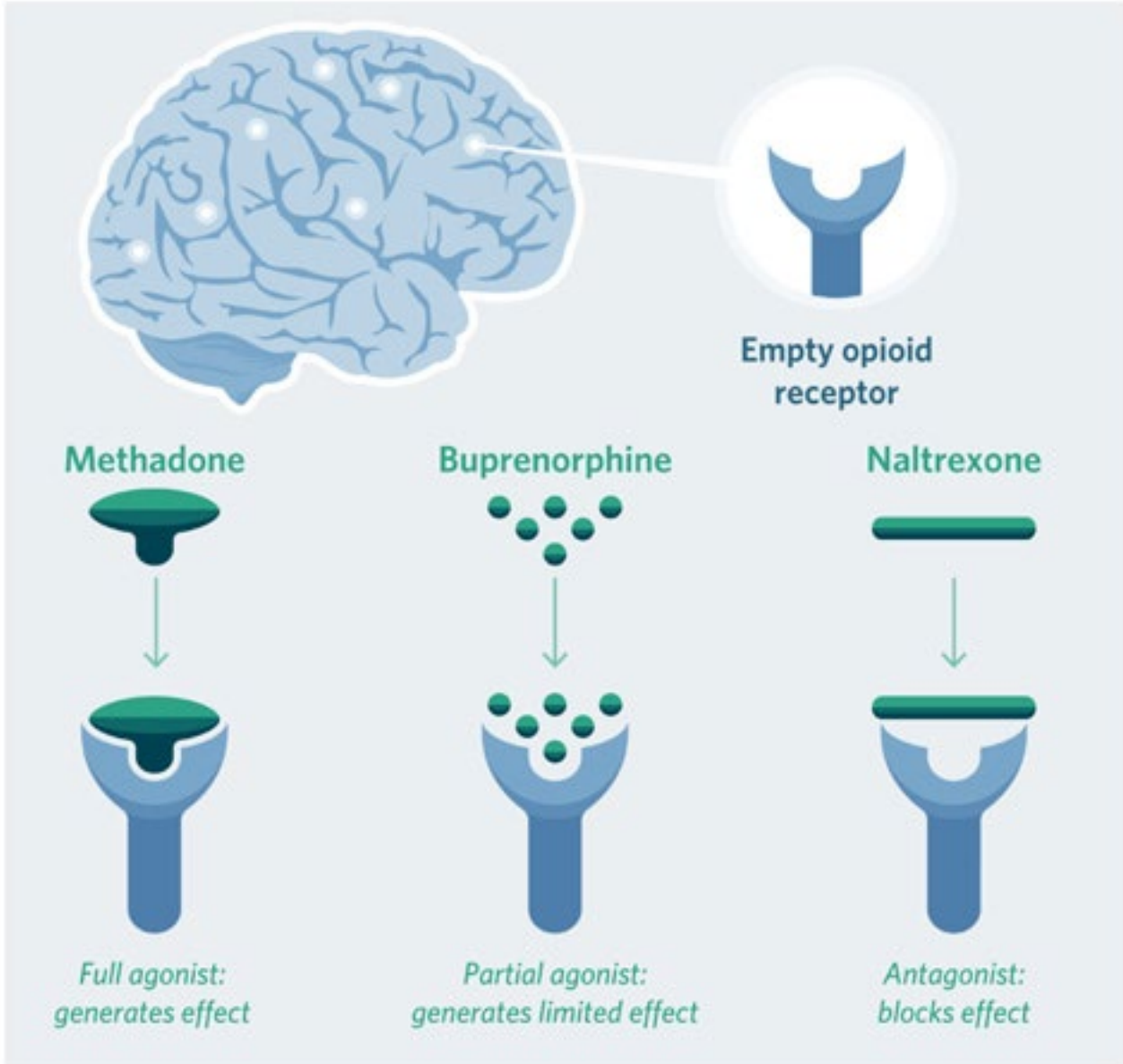
- Prevention of deaths from overdose
- Decrease Infections and Wounds from IVDA
- Healthier Pregnancy
- Decrease use of 911 resources for Opioid calls
- Treatment of OUD Benefits:
  - Lowers HIV and Hep C- less use shared needles
  - Crime reduction
  - Access to primary healthcare and cancer screening
  - Patients return to school/work environments



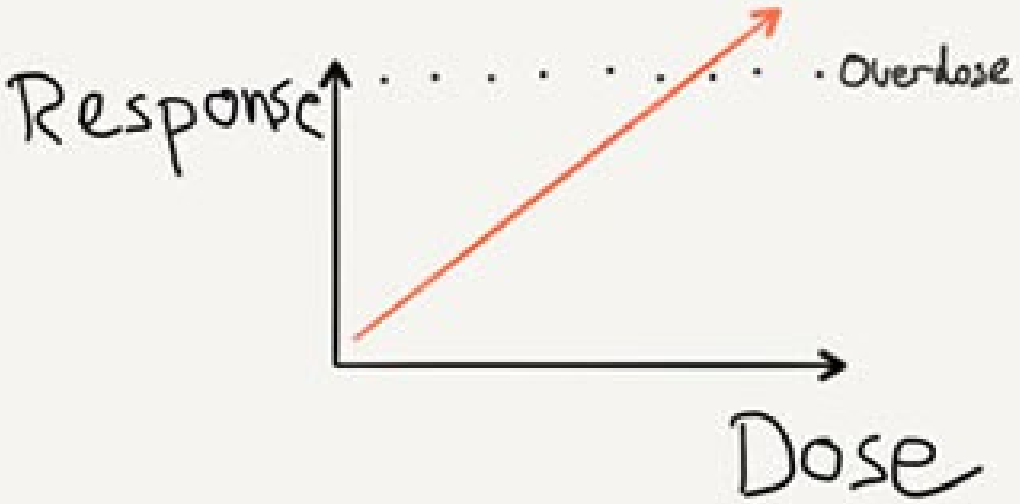
MAT expansion in ED/EMS

- **Reduction of barriers to provide MAT in the ED or EMS setting**
  - No more "X waiver" for bup products
- **MAT programs increasing in emergency settings**
- **MAT programs in service/starting in NC: Buncombe, Durham, Orange**

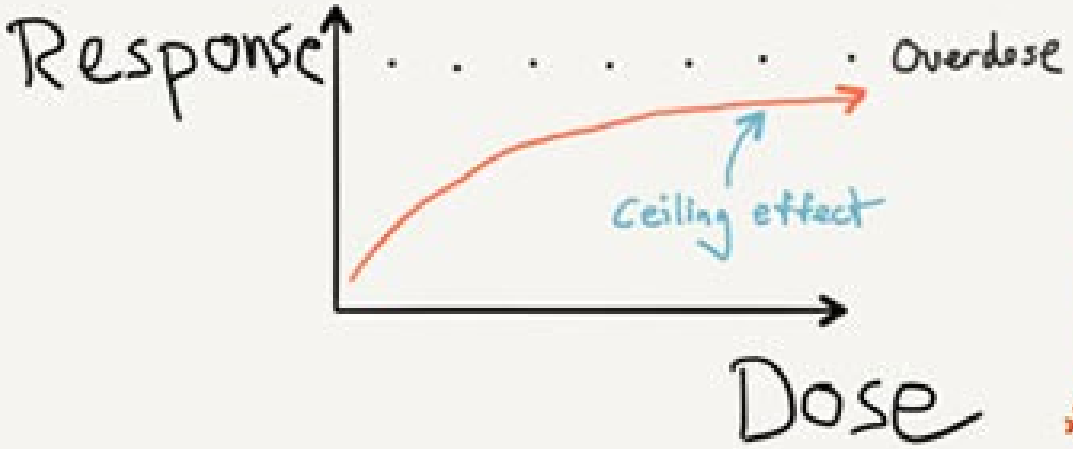
How OUD Medications Work in the Brain



Source: PCT, 2016



Methadone
(Full opioid)
*Legitimate O.D. Risk



Buprenorphine
(Partial opioid)
* Minimal to No O.D. Risk

MAT – how to do it?

- History, exam, vitals
- Is the patient experiencing withdrawal?
- Exclusion Criteria
- Coaching, Engagement, Consent
- Treatment with Buprenorphine
- Referral/Follow-up (or Transport)

Example

SAFD MAT PROTOCOL (BUPRENORPHINE)

- BASIC PHYSICAL ASSESMENT AND VITALS
- COWS SCORE >8 ? (we go lower if high risk OD)
- LAST USE HEROIN >24 HRS or Methadone>3 days ?

- TREATMENT PLAN
  - ZOFRAN 8 MG ODT
  - BENDRYL 25-50 MG PO
  - IMMODIUM 2 TABS PO PRN
  - BUPRENORPHINE 16 24 or 32 MG SL STRIPS
  - IF LESS 24 HRS LAST USE ---CAN USE CLONIDINE 0.2 PO Q12 HRS.

EXCLUSION CRITERIA

- OPIOID USE WITHIN 24 HOURS OR ANY LONG-ACTING OPIOID WITHIN 72 HRS (METHADONE.)
- CHRONIC PAIN PATIENTS WHO ARE PRESCRIBED OPIOIDS.
- CURRENT EVIDENCE OF INTOXICATION TO ALCOHOL OR OTHER SUBSTANCES. OR HX BENZO USE
- CURRENT PREGNANCY. (RELATIVE) (MAY BE TREATED WITH MEDICAL DIRECTION CONSULTATION)
- PRESENCE OF SEVERE CIRRHOSIS, LIVER FAILURE OR RENAL FAILURE (DIALYSIS).
- UNSTABLE VITAL SIGNS OR SIGNS OF HEMODYNAMIC OR RESPIRATORY INSTABILITY. ACTIVE INFECTION OR TRAUMA NEEDING MEDICAL ATTENTION.

Determine Withdrawal

Objective withdrawal signs help establish physical dependence

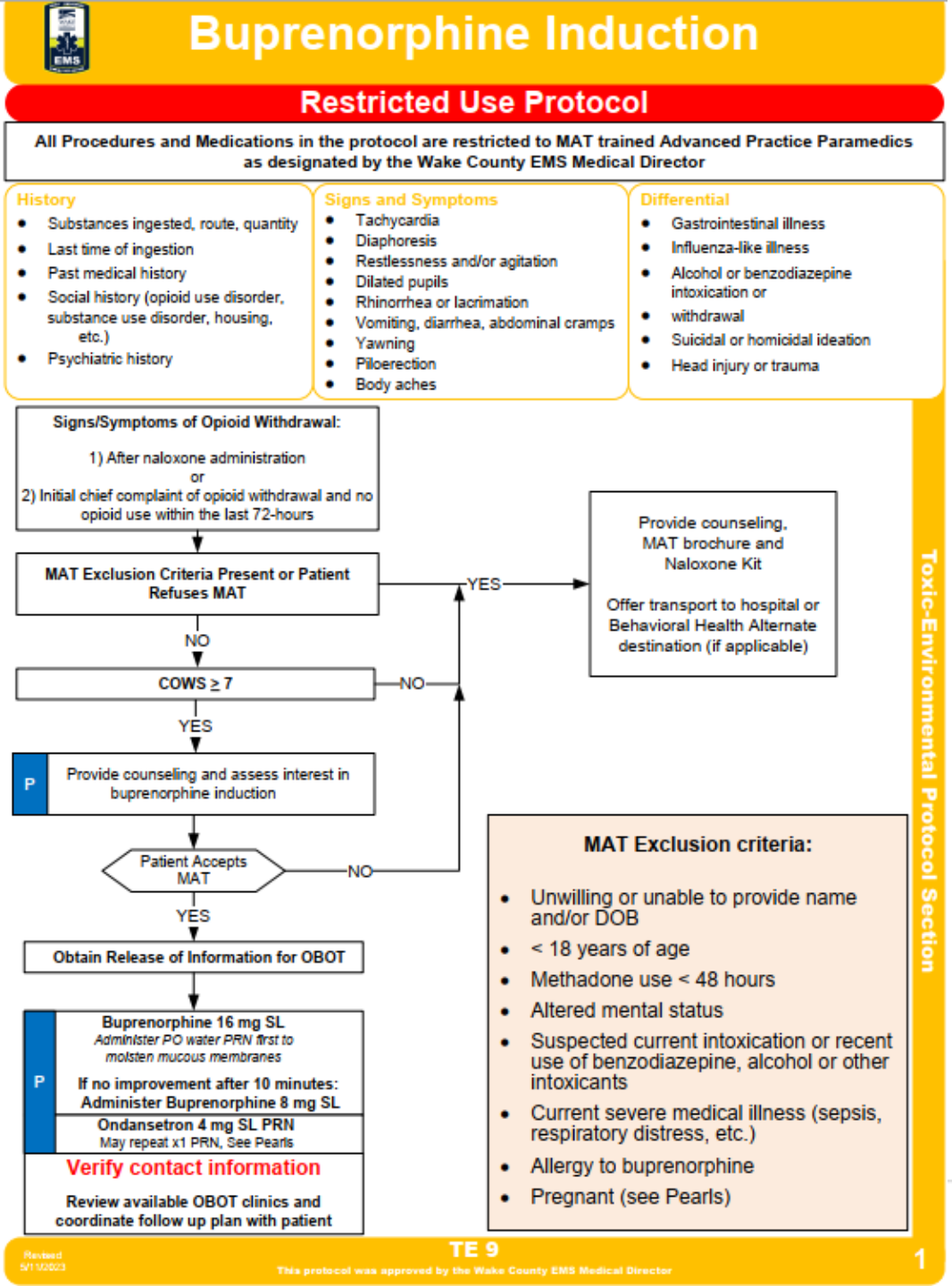
The risk with initiating buprenorphine too soon is that buprenorphine has a very high affinity for the mu receptor and will displace any other opioid on the receptor, thereby causing precipitated opioid withdrawal.

Wesson & Ling, J Psychoactive Drugs. 2003 Apr-Jun;35(2):253-9.

COWS Clinical Opiate Withdrawal Scale

Resting Pulse Rate: _____beats/minute *Measured after patient is sitting or lying for one minute* 0 Pulse rate 80 or below 1 Pulse rate 81-100 2 Pulse rate 101-120 4 Pulse rate greater than 120	GI Upset *over last 1/2 hour* 0 No GI symptoms 1 Stomach cramps 2 Nausea or loose stool 3 Vomiting or diarrhea 5 Multiple episodes of diarrhea or vomiting
Sweating *over past 1/2 hour not accounted for by room temperature or patient activity.* 0 No report of chills or flushing 1 Subjective report of chills or flushing 2 Flushed or observable moistness on face 3 Beads of sweat on brow or face 4 Sweat streaming off face	Tremor *observation of outstretched hands* 0 No tremor 1 Tremor can be felt, but not observed 2 Slight tremor observable 4 Gross tremor or muscle twitching
Restlessness *Observation during assessment* 0 Able to sit still 1 Reports difficulty sitting still, but is able to do so 3 Frequent shifting or extraneous movements of legs/arms 5 Unable to sit still for more than a few seconds	Yawning *Observation during assessment* 0 No yawning 1 Yawning once or twice during assessment 2 Yawning three or more times during assessment 4 Yawning several times/minute
Pupil size 0 Pupils pinned or normal size for room light 1 Pupils possibly larger than normal for room light 2 Pupils moderately dilated 5 Pupils so dilated that only the rim of the iris is visible	Anxiety or irritability 0 None 1 Patient reports increasing irritability or anxiousness 2 Patient obviously irritable anxious 4 Patient so irritable or anxious that participation in the assessment is difficult
Bone or Joint aches *If patient was having pain previously, only the additional component attributed to opiate withdrawal is scored* 0 Not present 1 Mild diffuse discomfort 2 Patient reports severe diffuse aching of joints/ muscles 4 Patient is rubbing joints or muscles and is unable to sit still because of discomfort	Gooseflesh skin 0 Skin is smooth 3 Piloerection of skin can be felt or hairs standing up on arms 5 Prominent piloerection
Runny nose or tearing *Not accounted for by cold symptoms or allergies* 0 Not present 1 Nasal stuffiness or unusually moist eyes 2 Nose running or tearing 4 Nose continually running or tears streaming down cheeks	Total Score _____ The total score is the sum of all 11 items Initials of person completing Assessment:_____

Score: 5-12 mild; 13-24 moderate; 25-36 moderately severe; more than 36 = severe withdrawal



Buprenorphine Induction

Restricted Use Protocol

All Procedures and Medications in the protocol are restricted to MAT trained Advanced Practice Paramedics as designated by the Wake County EMS Medical Director

History
- Substances ingested, route, quantity
- Last time of ingestion
- Past medical history
- Social history (opioid use disorder, substance use disorder, housing, etc.)
- Psychiatric history

Signs and Symptoms
- Tachycardia
- Diaphoresis
- Restlessness and/or agitation
- Dilated pupils
- Rhinorrhea or lacrimation
- Vomiting, diarrhea, abdominal cramps
- Yawning
- Piloerection
- Body aches

Differential
- Gastrointestinal illness
- Influenza-like illness
- Alcohol or benzodiazepine intoxication or
- withdrawal
- Suicidal or homicidal ideation
- Head injury or trauma

Signs/Symptoms of Opioid Withdrawal:

1) After naloxone administration
or
2) Initial chief complaint of opioid withdrawal and no opioid use within the last 72-hours

MAT Exclusion Criteria Present or Patient Refuses MAT — YES → Provide counseling, MAT brochure and Naloxone Kit. Offer transport to hospital or Behavioral Health Alternate destination (if applicable)

NO

COWS ≥ 7 — NO → (MAT Exclusion Criteria Present or Patient Refuses MAT)

YES

P Provide counselling and assess interest in buprenorphine induction

Patient Accepts MAT — NO → (MAT Exclusion Criteria Present or Patient Refuses MAT)

YES

Obtain Release of Information for OBOT

P **Buprenorphine 16 mg SL**
Administer PO water PRN first to moisten mucous membranes
If no improvement after 10 minutes: Administer Buprenorphine 8 mg SL
Ondansetron 4 mg SL PRN
May repeat x1 PRN, See Pearls

Verify contact information

Review available OBOT clinics and coordinate follow up plan with patient

MAT Exclusion criteria:
- Unwilling or unable to provide name and/or DOB
- < 18 years of age
- Methadone use < 48 hours
- Altered mental status
- Suspected current intoxication or recent use of benzodiazepine, alcohol or other intoxicants
- Current severe medical illness (sepsis, respiratory distress, etc.)
- Allergy to buprenorphine
- Pregnant (see Pearls)

Toxic-Environmental Protocol Section

Revised 5/11/2023

TE 9

This protocol was approved by the Wake County EMS Medical Director

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Wake EMS Protocol

- Exclusion Criteria listed
- COWS ≥ 7
- Bup with repeat prn
- Coordinated followup

Wake EMS Specifics

- **APP protocol**
  - Medic 96 opportunities
  - Dispatched to MH/SU calls
  - Can be requested if patient is in opiate withdrawal
  - Alternative destination experts
  - Extended scene times
- **FOLLOWUP – will be coordinated with Southlight**

Call Today: **919-787-6131** *Search*

SouthLight

Announcing expanded access to Opioid Treatment with evening hours. Learn more.

Opioid Treatment Program

Home ▸ Services ▸ Adult Outpatient Services ▸ Opioid Treatment Program

SouthLight

Services available:

We offer the following services to patients in or around Wake County:

- Daily Dosing of Methadone
- Daily Dosing of Buprenorphine
- Individual Counseling Services
- Group Counseling Services
- Urine Drug Screens
- Case Management/ Referral Services
- Care for Adults using prescription opioids and/or heroin for a year or more
- Ages: Adults ages 18 & up
- **Cost and Insurances**

Dosing Hours

Mornings

- 5:30 a.m. – 12:30 p.m. Monday-Friday (Working clients)
- 6:00 a.m. – 12:30 p.m. Monday-Friday (Non-Working clients)
- 5:30 a.m. – 9:30 a.m. Saturdays/Sundays
- 5:30 a.m. – 3:30 p.m. Monday-Friday (Walk-in, no appointment needed)

New Evening Hours!

- 4:00 – 8:00 p.m. Monday-Friday
- 4:00 – 6:00 p.m. Weekends and Holidays

Location: **2101 Garner Road, Raleigh, NC**

Followup- Southlight

- Same day or next-day referral
- Weekends?
- APPs maybe to provide followup dose or two prn.
- Southlight to coordinate ongoing treatment, counseling, social work assistance, etc.

Summary - MAT

- **"You can't help someone if they're dead."**
- **Buprenorphine induction in emergency medicine settings is safe and effective**
- **Wake EMS – Southlight partnership to begin in the coming months**
  - Kudos to Chief Lyons and Dr. Godfrey