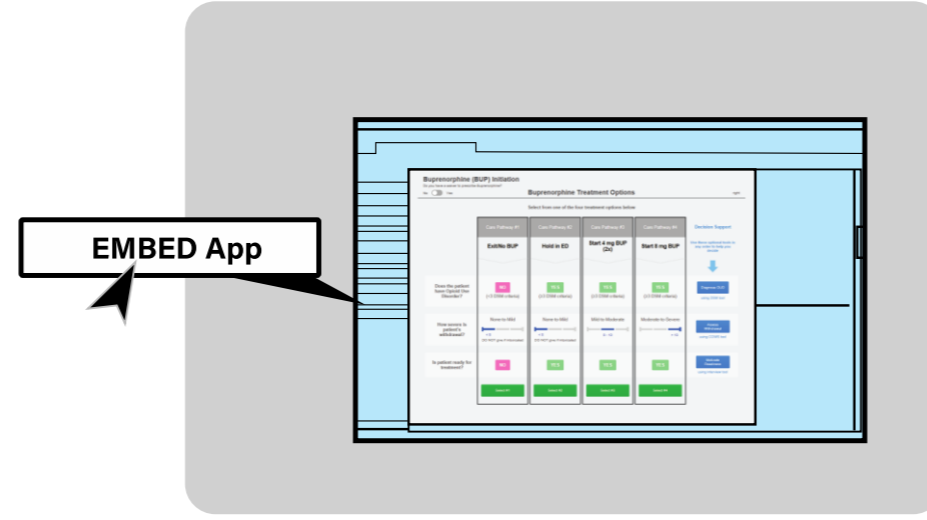


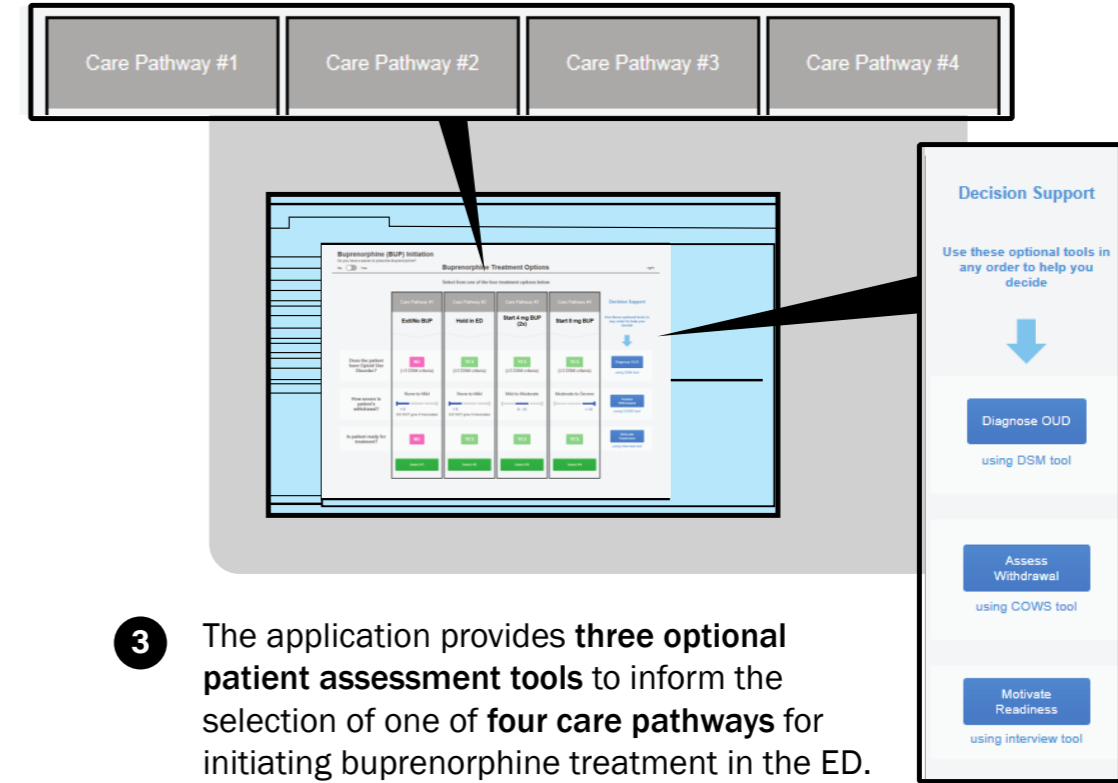
IT Workflow: Initiating buprenorphine in the ED using the 'EMBED' clinical decision support application



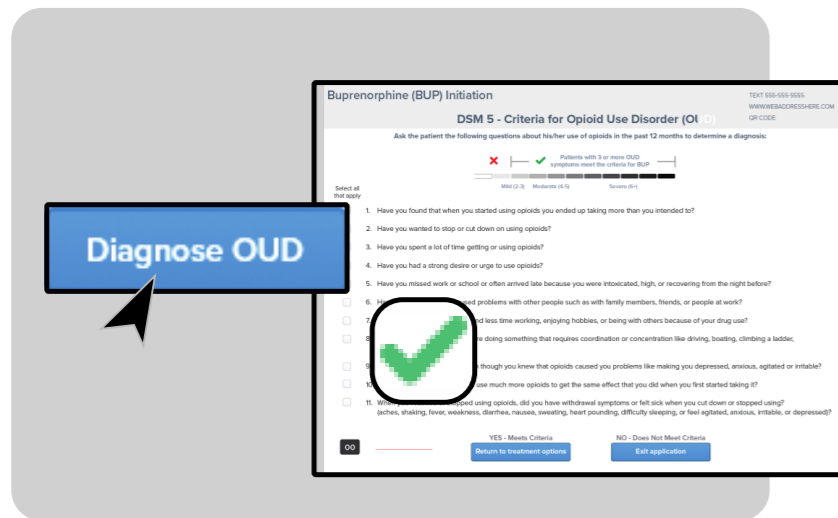
1 ED clinicians will conduct their usual workflow within their current EHR environment.



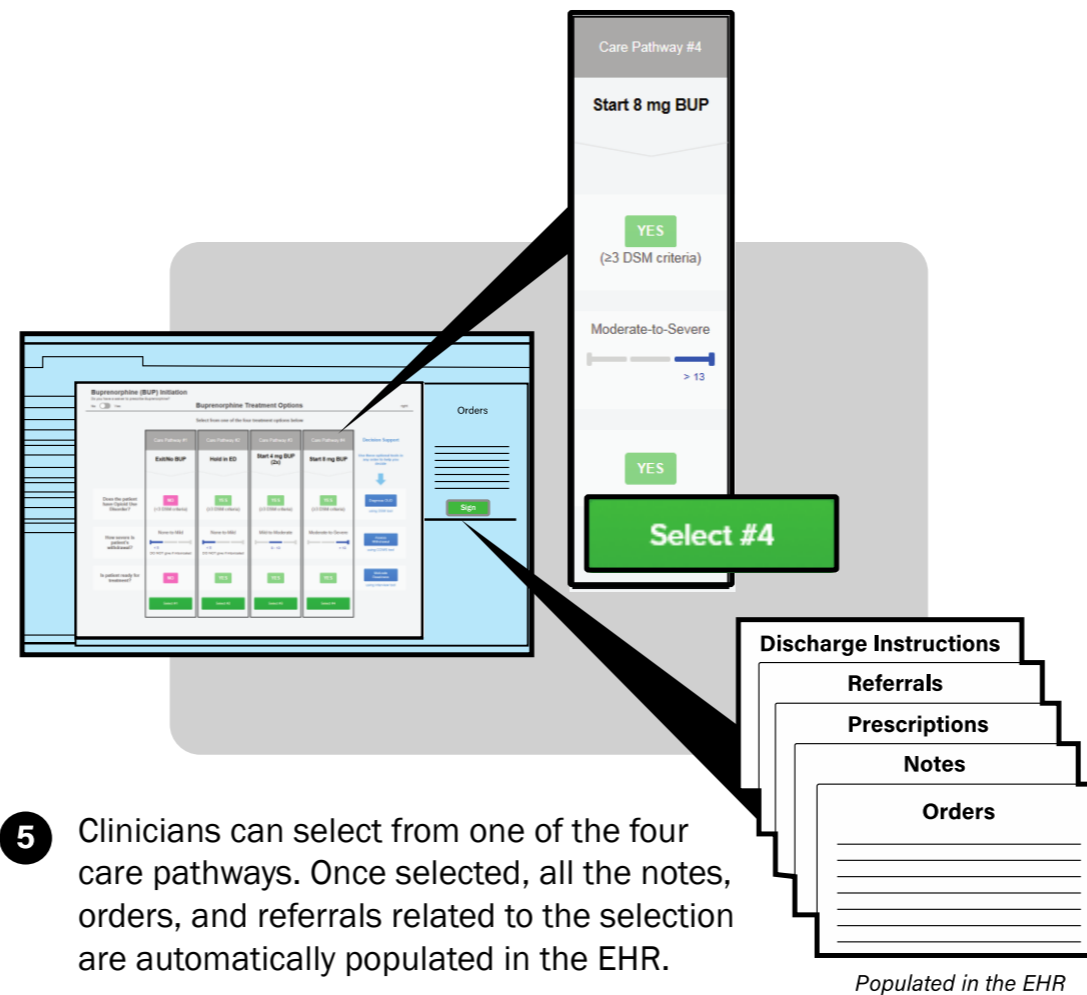
2 When the appropriate patient is identified, the clinician can click on the button to launch the 'EMBED' decision support application without leaving the EHR.



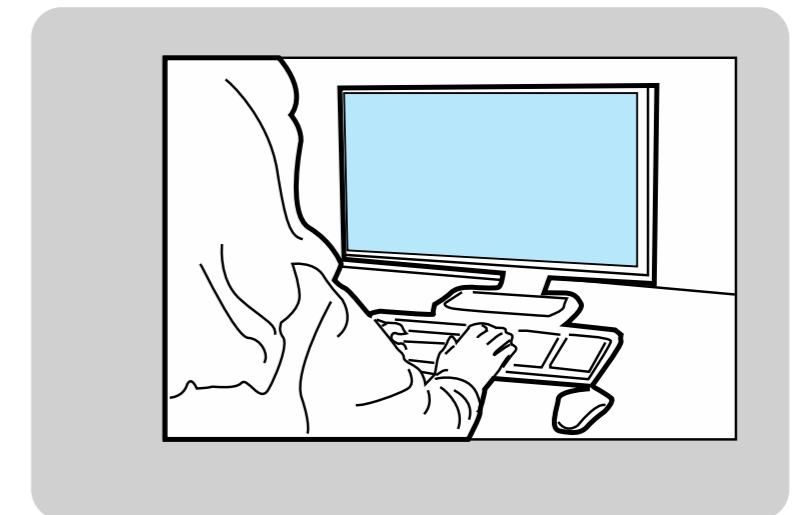
3 The application provides **three optional patient assessment tools** to inform the selection of one of **four care pathways** for initiating buprenorphine treatment in the ED.



4 Other members of the care team can complete all or just some of the assessment tools, specifically for diagnosing OUD, scoring withdrawal symptoms, and determining a patient's readiness for treatment.



5 Clinicians can select from one of the four care pathways. Once selected, all the notes, orders, and referrals related to the selection are automatically populated in the EHR.



6 Users can exit the application without leaving the EHR once the care pathway has been selected, or at any time in the process.

Populated in the EHR

Buprenorphine (BUP) Initiation

Do you have a waiver to prescribe Buprenorphine?

No Yes

Buprenorphine Treatment Options

right

Select from one of the four treatment options below

	Care Pathway #1	Care Pathway #2	Care Pathway #3	Care Pathway #4	Decision Support
	Exit/No BUP	Hold in ED	Start 4 mg BUP (2x)	Start 8 mg BUP	Decision Support Use these optional tools in any order to help you decide ↓
Does the patient have Opioid Use Disorder?	NO (<3 DSM criteria)	YES (≥3 DSM criteria)	YES (≥3 DSM criteria)	YES (≥3 DSM criteria)	Diagnose OUD using DSM tool
How severe is patient's withdrawal?	None-to-Mild [Progress bar: 0 to 8, filled to < 8] < 8 DO NOT give if intoxicated	None-to-Mild [Progress bar: 0 to 8, filled to < 8] < 8 DO NOT give if intoxicated	Mild-to-Moderate [Progress bar: 0 to 13, filled to 8-13] 8 - 13	Moderate-to-Severe [Progress bar: 0 to 13, filled to > 13] > 13	Assess Withdrawal using COWS tool
Is patient ready for treatment?	NO	YES	YES	YES	Motivate Readiness using interview tool
	Select #1	Select #2	Select #3	Select #4	

Supplementary Table. Ongoing OUD quality improvement initiatives at study sites during EMBED trial

	Concurrent non-EMBED projects promoting EMBED like outcomes			Mode of physician training on how to use Intervention		If financial incentives offered through EMBED trial to promote X-waiver training	Support staff in ED for warm hand-off and coordination of MOUD referral	COVID-19 related Interruptions or change in protocol
	MOUD referral	X-waiver Training	Naloxone distribution	Mode of physician training	If any incentives offered			
Yale New Haven Health	Yes, Intervention & Control sites	Yes, Intervention & Control sites	Yes, Intervention & Control sites	In-person 1:1 training;	Yes	None	Health promotion advocates (HPAs) present at one Intervention site & all Control sites	<p>No reported interruptions in patient access to community MOUD sites.</p> <p>No change made to study protocol, but ED clinicians at Intervention and Control</p> <p>Sites were urged to prescribe longer length of Buprenorphine prescription</p>
Baystate Health	Yes, at Intervention sites, not at Control sites	Yes, both at Intervention & Control sites	Yes (ED take-home Narcan program), at one Intervention site starting August, 2020 and eventually extended to all community hospitals by October, 2020	Mix of in-person trainings, emails, presentation at faculty-resident conference;	None	None	RNs and Mental Health coordinators present at Intervention sites	
Colorado Health System	Yes, both at Intervention & Control sites	Yes, only Control sites (Primary targets PA/NP)	Narcan available without a prescription at any pharmacy, statewide in Colorado. Hence not routinely given out from the ED	Instructional materials sent to clinicians via emails;	None	Yes, only Intervention sites	Addiction counselor, crisis assessment counselors, social workers present at all Intervention sites	
University of Alabama Health System	Robust Opiate Use Disorder Power plan at Control sites which supports (1) ED initiation of Bupe, (2) Naloxone distribution, (3) MOUD referral;			In-person training, emails and posted on the ED website	None	Yes, both at Intervention & Control sites	Care coordinators, on-call peer navigators present at Control sites	
University of North Carolina Health System	N/A	N/A	N/A	In-person presentations, emails	None	Yes, both at Intervention & Control sites	ED social worker present at one Control site	