REMIFENTANIL

Remifentanil is an ultra-short acting synthetic opioid drug with onset and offset within 1-2 minutes. This occurs because it is metabolised by highly active esterase enzymes in the plasma, and does not require liver or renal function for metabolism. These properties mean it is administered by continuous infusion and is ideal for titrating analgesia and sedation in the ICU; this approach using a single agent has been called analgosedation. Remifentanil can cause significant hypotension as well as respiratory depression, especially in high dose. It's analgesic effect wears off very rapidly so dose reduction should be carried out with caution in patients anticipated to experience significant pain.

REMIFENTANIL			
RECEPTOR TYPE	Gaba Receptors	α2-Receptors	Opioid Receptors
Receptor type			✓
ONSET	Rapid (< 1 minute)	Intermediate (1-3 minutes)	Slow (> 3 minutes)
Rate of Onset	✓		
Rate of Offset		✓	
EFFECT	Strong	Weak	None
Sedative effect (hypnosis and anxiolysis)	✓		
Amnesic effect			✓
Analgesic effect	✓		
RISKS	None	Lower Risk	Higher Risk
Cardiovascular effects (low pulse and/or blood pressure			✓
Respiratory depression			✓
Potential to cause delirium	✓		
Active metabolites and/or accumulation	✓		
Potential toxic effects		✓	
COST	Low	Intermediate	High
Cost		✓	

DESIST