

Terminology of Abuse


- Dependence - the need to maintain administration of a substance to prevent the appearance of an abstinence syndrome
- Tolerance - decreased effectiveness of a pharmacologic agent after prior administration
- Physical dependence (Habituation) - dependence and tolerance in the non-addicted patient



Continuum of Problematic Opiate Use



mild indiscretion → repeated
misuse →
→ opiate abuse → opiate addiction



Complexity of Addiction

- Drug craving and pain, conditioned withdrawal
- Rebound pain associated with subclinical withdrawal
- Difficulty with time contingent dosing
- Supplemental dosing
- Tolerance
- Medical procedures and the pursuit of drugs

Pseudo-addiction

- Drug-seeking behaviors
- Medications taken in larger amounts than prescribed
- Premature running out of medications
- Family concerns about medication
- Withdrawal symptoms
 - Weissman, DE, Pain vol 36, 1989

The Grey Areas

- Drug and Narcotic Codes
 - Describes circumstances when addicts can be treated with narcotics
 - terminology problems “dependent or addicted”
- High dose patients more often labeled addicted. Does tolerance = addiction?
- Leading trigger for Medical Board Review is “overprescribing”
- Large variations in doctors assessment of pain and addiction
- Problems of documentation

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Addiction Consultation: Clarify the Question

- Suspected addiction
- Increased tolerance
- Side effects of opiate analgesics
- Fear of regulatory sanction
- Desire to terminate care
- Detoxification recommendations
 - sources of information, doctor, office staff, nurses, family

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Addiction Consultation: The Interview

- Normalize the process
- Inquire about the patient's pain
- Determine the patients understanding of why the consultation was requested
- Appreciate the fear and stigma associated with an addiction consultation for many pain patients

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Questions to Probe for Prescription Drug Abuse

- Pain source
 - single or multiple sources of pain
- Chronic pain syndrome
- Relationship with doctors
- Have doctors terminated care or refused to prescribe
- Legal involvement

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Questions to Probe for Prescription Drug Use

- Patients with a remote history of substance abuse
- Patients with a history of opiate abuse on methadone maintenance
- Patients currently abusing drugs
- Family history of drug abuse
- Drug use patterns of friends or spouse

Acquisition of Prescribed Drugs

- Preference for specific opiates or routes
- Non-medical sources of purchase
- Prescription drug sale
- Prescription forgery
- Contacts with multiple medical doctors, dentists
- Frequent ER visits

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Clinical Features of Prescription Drug Abuse

- Repeated unsanctioned dose escalation
- Repeated use of opiates to treat symptoms other than those targeted by the therapy
- Hoarding drugs
- Supplementing with other drugs
- **History of overdose**

Clinical Features of Prescription Drug Abuse

- Difficulty stopping opiates when alternative treatment is available
- Lack of cooperation with alternative pain management techniques
- Disproportionate complaints of pain
- Adverse life consequences due to medication use
- Sees & Clark, J Pain Symp Manage, 1993

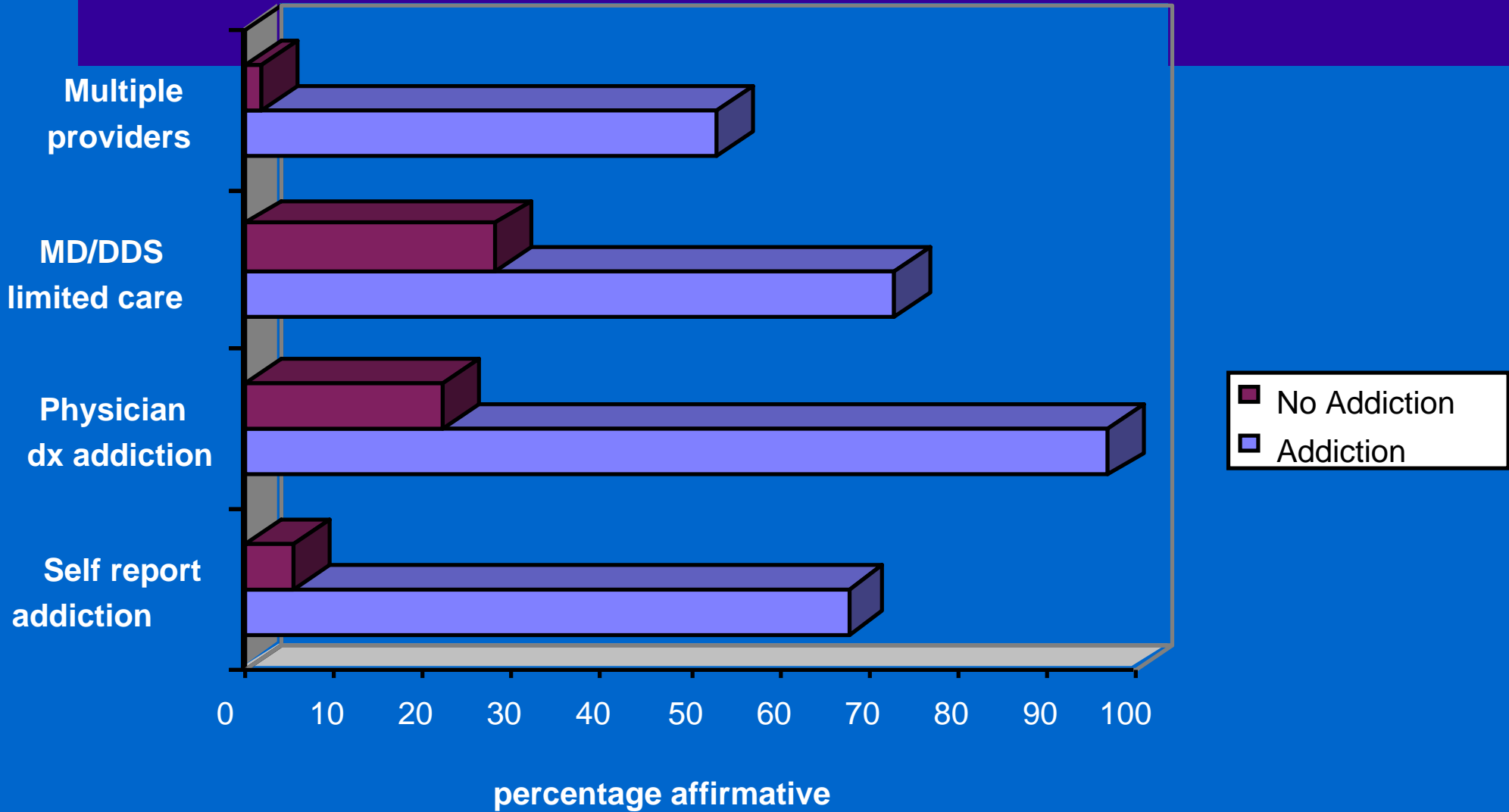


Evaluation of the Family

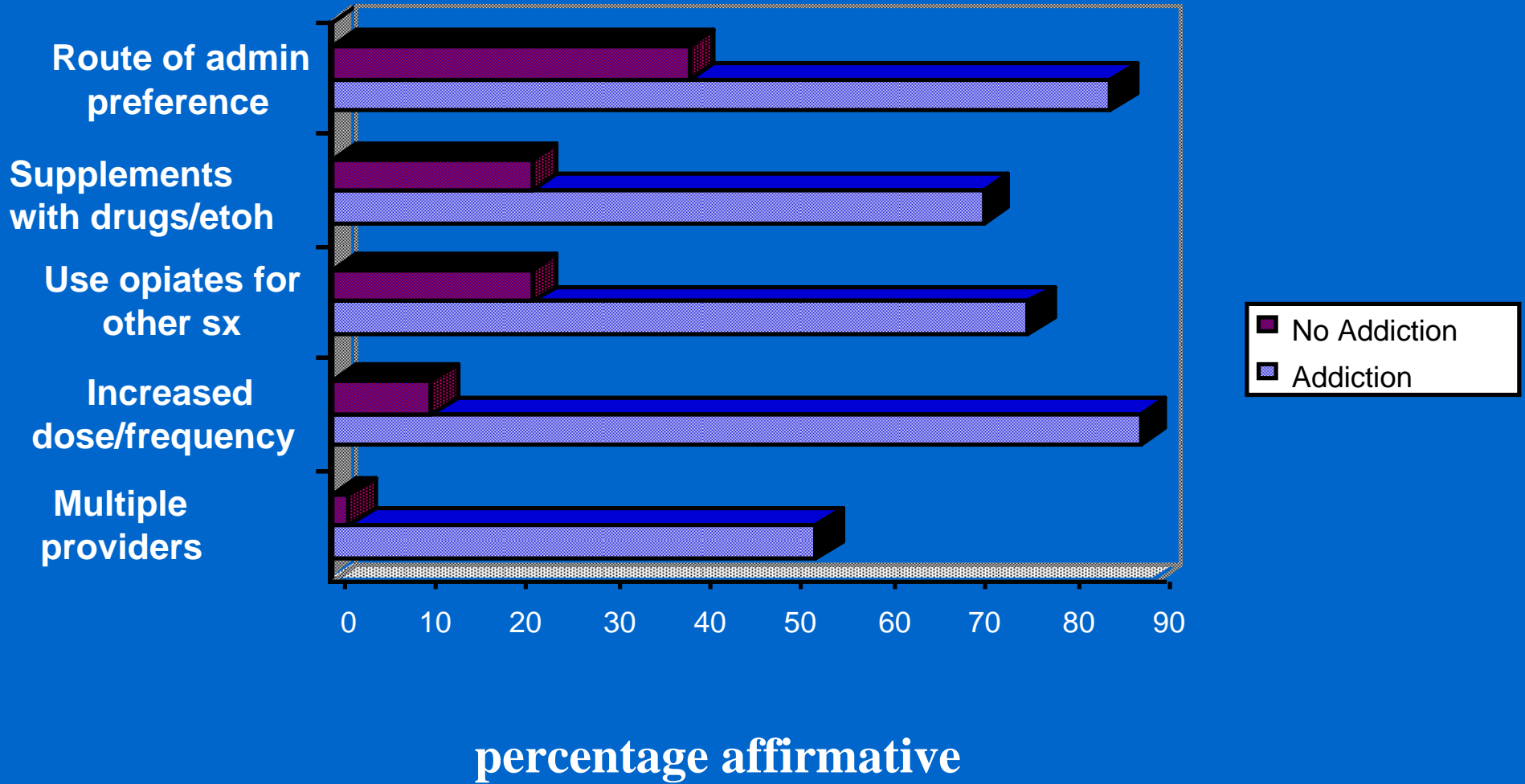
- Family history of addiction
- Family history of pain/pain syndrome
- Family member with access to narcotics
- Contribution to “illness behavior”
- Contribution to addiction



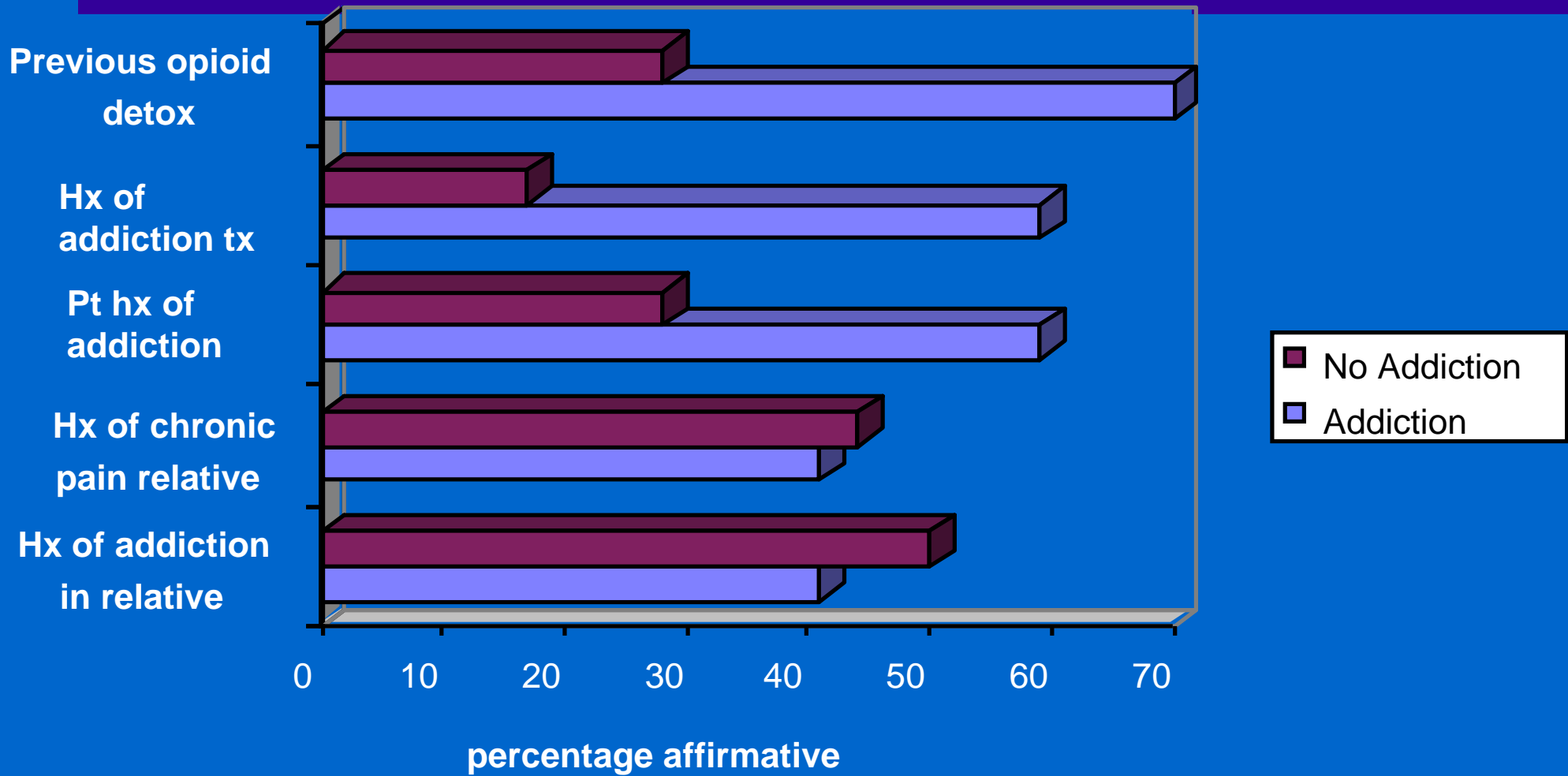
Questionnaire Responses



Questionnaire Response



Questionnaire Responses



• • • Evaluation of Psychosocial Factors

- Pain is unavoidable, misery is optional
- Intensifiers of pain: fear, anger, guilt, loneliness, helplessness
- Repeated victimization
 - workers compensation
- Catastrophizing and coping

Multiple Pains and Psychiatric Disturbance

- Multiple pain conditions are common in the population
- Multiple pains are associated with anxiety and depressive disorders
- Less predicative of depression are pain intensity, severity, or persistence
- Somatization hypothesis

– Dworkin, S Arch Gen Psy, Vol 47, 1990



Patient Education

- Lack of euphoria does not exclude addiction
- Individual nature of opiate withdrawal
 - rebound pain
- Role of a responsible patient
- Triggers for problematic medication use
- Factors which exacerbate pain



Recommendations: Treatment Tools

- Treatment contract
 - S Fishman et al J Pain and Sym Management, July, 1999
- Medication log/Single pharmacy
- Random urine monitoring (GC/MS)
- Feedback from family and friends

Recommendations: Treatment Tools

- Diversion safeguards
- Small amounts of medication dispensed
 - family member, friend, pharmacy
- Comprehensive pain treatment program
- Addiction treatment

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Addiction Treatment for Chronic Pain Patients

- Detoxification
- When continued opiate analgesia is indicated
 - Participation in substance abuse programs
 - Participation in 12-step programs
 - Medically ill substance use group

Similarities in Effective Drug and Chronic Pain Treatment

- Cognitive therapy
- Behavior modification
- Involvement of the family
- Treating concurrent psychological or psychiatric problems
- Relaxation, exercise and conditioning
- Group support
- Structured activity

Analgesic Agents

- Acetaminophen
- Aspirin
- NSAID
- Fioricet, Repan, Esgic
- Fiorinal, Lanorinal, Marnal
- Tylenol with Codeine
No 1 (7.5mg), No 2 (15mg)
No 3 (30mg), No 4 (60mg)
- Acetaminophen with synthetic codeine preparations
- Demerol
- Other narcotics, administered orally, intranasally, transdermally or parenterally

Acetaminophen

- Variable amounts of acetaminophen in analgesic preparations
- Total daily dose should not exceed 4000 mg
- Hepatotoxicity may occur after a single dose of 10-15 grams
 - N-acetyl-benzoquinoneimine
- 20 to 25 grams are potentially fatal
- Renal tubular necrosis, hypoglycemic coma

Meperidine - (Demerol)

- Mu agonist, 75 to 100 mg = 10 mg morphine (parenterally)
- Oral bioavailability limited
- Duration of analgesia 3 to 5 hours ($t_{1/2}$ 3 hrs.)
- Metabolite normeperidine $t_{1/2}$ 15 to 20 hrs
- Normeperidine active metabolite

Meperidine - (Demerol)

- Urinary excretion primary route of drug elimination
- Renal dysfunction promotes increase normeperidine
- Acidic urine increased elimination of normeperidine
- CNS excitation - anxiety, delirium, psychosis, hyper-reflexia, tremors, multifocal myoclonus, seizure

Butorphanol (Stadol)

- Transnasal butorphanol
- Acute migraine treatment
- Agonist/antagonist
- Intranasal dose 0.5 to 2 mg
- Abuse potential

Codeine

- Metabolism in humans exhibits genetic polymorphism
- Metabolism of codeine to morphine by cytochrome P450 IID6 isoenzyme
- Multiple metabolites (morphine-6-glucuronide)
- Poor metabolizers less pain tolerant

Smooth Muscle Relaxants

<u>Drug</u>	<u>Brand Name</u>	<u>Half-life</u>
Carisoprodol	Soma	8h
Chlorzoxazone	Paraflex	1-2h
Cyclobenzaprine	Flexeril	1-3days
Methocarbamol	Robaxin	1-2h
Orphenadrine	Norflex	1-3days

Myorelaxants

- Chemical heterogeneity of agents
- Depress polysynaptic reflexes
- Nonspecific sedative properties
- Carisoprodol (Soma) meprobamate precursor (abuse potential)
- Cyclobenzaprine (Flexeril) structurally similar to tricyclic antidepressants