

UNDERSTANDING THE HEROIN/OPIOID EPIDEMIC

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- 45 YEAR ADDICTION PROFESSIONAL
- LEARNING OBJECTIVES:
 - HOW SERIOUS IS IT?
 - HOW DID WE GET HERE?
 - WHAT CAN BE DONE?

OVERVIEW OF OPIOID PROBLEM

STATS AND FACTS...

- IN 2016, 4642 FATAL OVERDOSE DEATHS IN PA WITH 85% CAUSED BY PRESCRIPTION OR STREET OPIOIDS.
- 80 PEOPLE DIE DAILY IN THE U.S. FROM OPIOID RELATED OVERDOSES.
- ANNUALLY, 250 MILLION PRESCRIPTIONS ARE WRITTEN FOR OPIOIDS IN THE U.S.

OVERVIEW OF OPIOID PROBLEM (cont'd)

- ABOUT 80% OF PEOPLE WHO USE HEROIN FIRST MISUSED PRESCRIPTION OPIOIDS.
- ROUGHLY 21-29 % OF PATIENTS PRESCRIBED OPIOIDS FOR CHRONIC PAIN, MISUSE THEM.
- ACCORDING TO VOX MEDIA, 64,000 PEOPLE DIED OF OVERDOSES IN THE U.S. IN 2016.
- MOST ADOLESCENTS WHO MISUSE PRESCRIPTION PAIN RELIEVERS ARE GIVEN THEM FOR FREE BY A FRIEND OR RELATIVE.

CONTRIBUTING FACTORS TO OPIOID EPIDEMIC

- LATE 1990'S, PHARMACEUTICAL COMPANIES REASSURED MEDICAL COMMUNITY THAT PATIENTS WOULD NOT BECOME ADDICTED TO PRESCRIPTION OPIOID PAIN RELIEVERS. THEREFORE, PROLIFERATION OF PRESCRIBING OPIOIDS.
- THERE WAS A TREMENDOUS INCREASE IN PRODUCTION OF OPIOIDS THAT FLOODED U.S.

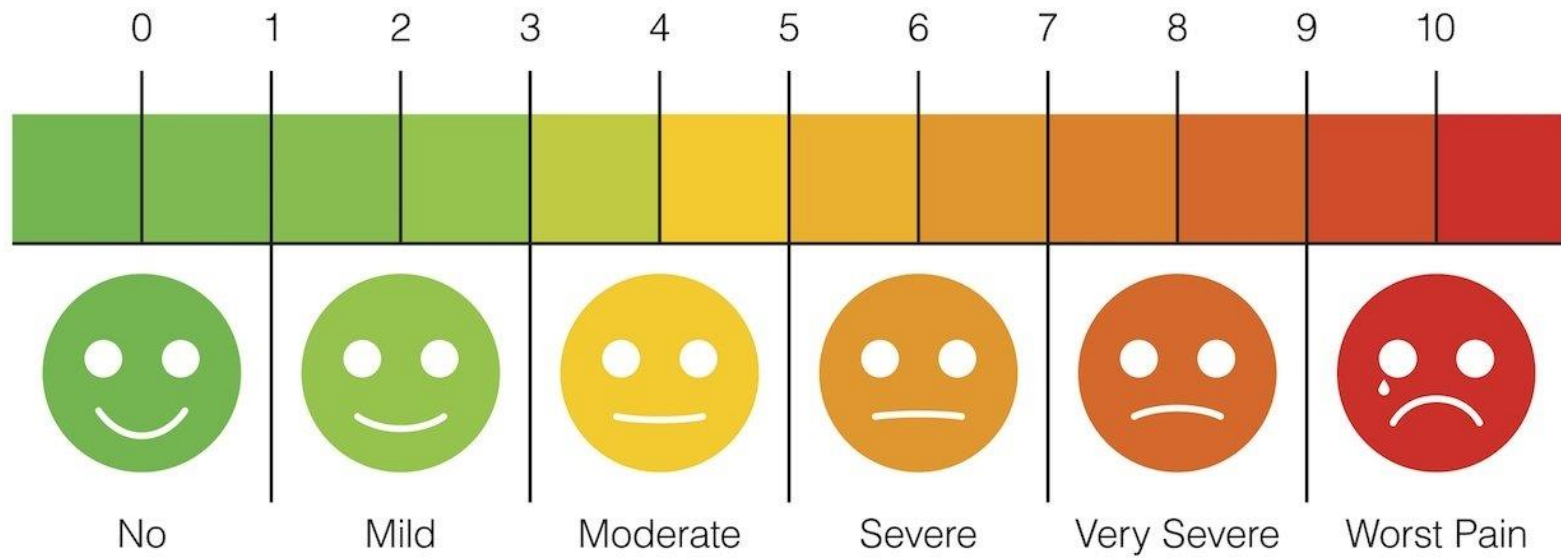
CONTRIBUTING FACTORS TO OPIOID EPIDEMIC (cont'd)

- AT THE SAME TIME, CLANDESTINE MANUFACTURE OF HEROIN AND FENTANYL INCREASED DRAMATICALLY.
- IN AMERICA, “IT IS MUCH EASIER TO GET HIGH THAN IT IS TO GET HELP”(only 12% of people suffering from drug addiction receive treatment)
- PROLIFERATION OF OPIOID AVAILABILITY AND SALES THROUGH INTERNET AND SOCIAL MEDIA SITES.

CONTRIBUTING FACTORS TO OPIOID EPIDEMIC (cont'd)

- “PAIN AS THE 5TH VITAL SIGN”(P5VS) INITIATIVE WAS ROLLED OUT. THE GOAL WAS FOR PATIENTS TO HAVE A ZERO PAIN EXPERIENCE OUT OF 10 , INCLUDING POST SURGERY.

PAIN SCALE



CONTRIBUTING FACTORS TO OPIOID EPIDEMIC (cont'd)

- OXYCONTIN WAS BROUGHT TO MARKET IN 1996; WAS MARKETED AS SAFE DUE TO TIME-RELEASE FORMULATION.
- 100 MILLION AMERICANS ARE ESTIMATED TO SUFFER FROM CHRONIC PAIN. RENEWED NATIONAL EMPHASIS ON INCREASED PATIENT SATISFACTION.



Rush Limbaugh for OxyContin

**“I couldn't get through
my day without it!”**

Being a best-selling author and a nationally syndicated radio host isn't easy. Day after day I have to go on the air, attack short-haired feminazis, berate environmental wackos, complain that black football players get a free ride from the media, support the drug war, demonize drug addicts like the late Kurt Cobain and condemn illegal drug use. More recently I've had to demonize returning Iraqi war veterans who criticize President Bush's war on the Middle East. How do I spew all this nonsense and still sleep like a baby at night? I take **OxyContin**, or as I like to call it, "little blues." It numbs my hypocritical conscience, soothes my guilt and makes things the way they ought to be!

**NO Prescription
or Doctor's Visit
Necessary!**

Here's what Rush really said about that drug war on October 5, 1995: "In many ways we getting away with drug use... the answer is to get out and find the men who are getting away with it, convict them and send them up the line too." [Quoted on an ad parody from the film *Top Gun*]

SURGEON GENERAL'S WARNING: Excessive use of OxyContin may turn you into a Republican and make you prone to irrational statements and political views like "anti-war veterans are phony soldiers."

OxyContin[®]

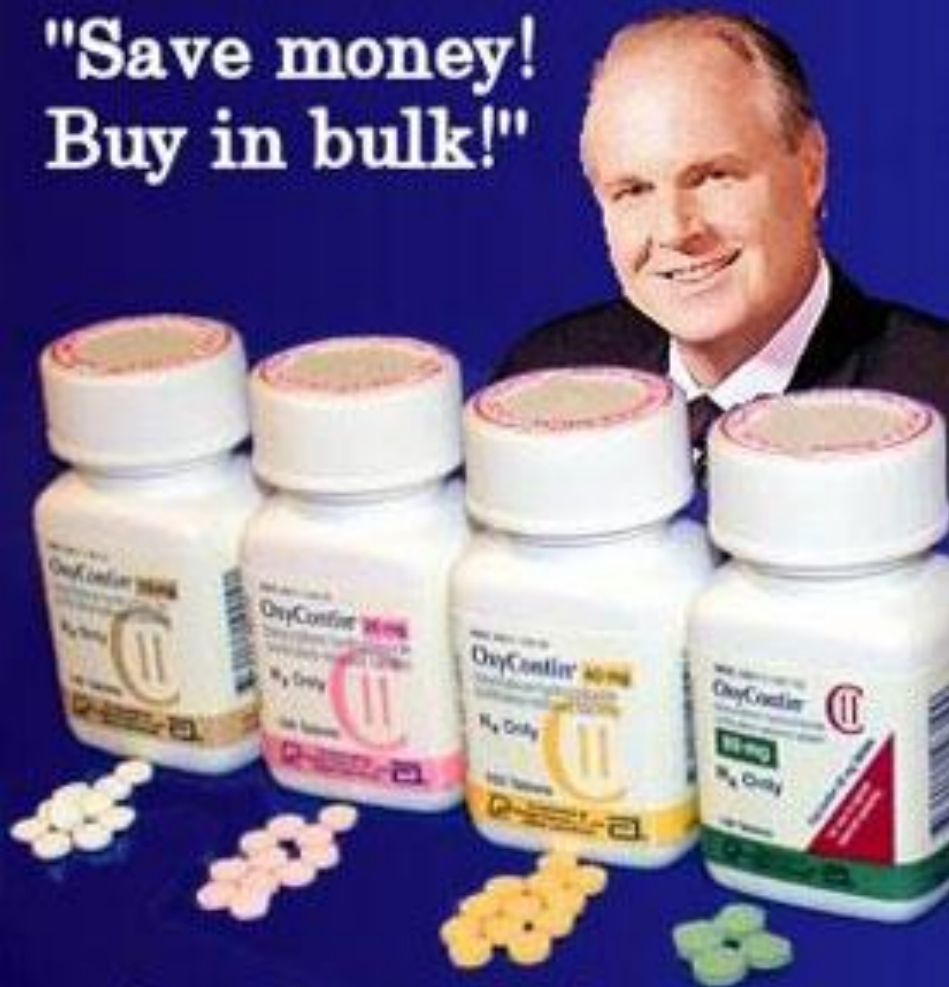
"OxyContin[®] helped me deal with the pain of living in a world that just didn't resemble my perceptions or my claims."



WARNING: This drug has been shown to cause serious addiction in many drug abusers.

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Rush sez:
"Save money!
Buy in bulk!"



OxyContin by



CONTRIBUTING FACTORS TO OPIOID EPIDEMIC (cont'd)

- “DOCTOR SHOPPING” AND “PHARMACY HOPPING” ACCELERATED.
- INCREASE IN “PILL MILLS” BY UNSCRUPULOUS HEALTHCARE PROVIDERS WHO SOUGHT MONETARY GAIN.
- LOW PRESCRIBER EDUCATION & AWARENESS COUPLED WITH LOW CONSUMER AWARENESS OF CONSEQUENCES OF OPIOID USE AND ABUSE.
- WEAK REGULATORY ENVIRONMENT; OVERSIGHT ENTITIES WERE CAUGHT OFF GUARD.

WHAT ARE OPIOIDS?

- OPIOIDS ENCOMPASS THE ENTIRE FAMILY OF OPIOIDS INCLUDING NATURAL, SEMI-SYNTHETIC AND SYNTHETIC.....



TYPES OF OPIOIDS

1 .NATURALLY OCCURRING OPIATES

(found in the resin of the opium poppy)

- MORPHINE
- HEROIN
- OPIUM
- CODEINE
- THEBANE
- ORIPAVINE



TYPES OF OPIOIDS (cont'd)

2. SEMI-SYNTHETIC OPIOIDS

(derived from naturally occurring opiates)

- HYDROCODONE (Vicodin-Lortab-Lorcet)
- HYDROMORPHONE (Dilaudid)
- OXYCODONE (OXYCONTIN-PERCODAN)
- OXYMORPHONE (Opana)

TYPES OF OPIOIDS (cont'd)

3.SYNTHETIC OPIOIDS

(synthesized from other chemicals)

- METHADONE
- FENTANYL (SCHEDULE 2 CONTROLLED SUB.)
- DEMEROL

WHAT ARE OPIOIDS USED FOR?

- CHRONIC PAIN RELIEF
- COUGH SUPPRESSANT
- ANALGESIC
- EPIDURAL ANESTHETIC
- ANTI-DIARRHEA
- RESPIRATORY SUPPRESSION

3 MAIN OPIOID RECEPTOR SYSTEMS

- (found primarily in the brain; also found in spinal cord and digestive tract)
 - MU
 - KAPPA
 - DELTA

METHODS OF DRUG ADMINISTRATION

1. ORAL – (EATEN...SMOKED...UNDER TONGUE)

- USUALLY LESS POTENT; LONGER ONSET TIME; LONGER LASTING

2. PARENTERAL-

(INTRAVENOUS(IV)...INTRAMUSCULAR (IM)...SUBCUTANEOUS (SKIN-POPPING))

- MEDICAL RISKS- HIV/AIDS; HEPATITIS; TETANUS; COLLAPSED VEINS; ENDOCARDITIS)

METHODS OF DRUG ADMINISTRATION (cont'd)

3. NASAL INSUFFLATION-(SPRAYED OR SNIFFED)

- MEDICAL RISKS-PERFORATION OF NASAL SEPTUM; SINUSITIS; NOSEBLEEDS; LOSS OF SENSE OF SMELL;)

4. ANAL (“PLUGGING”)-(RAPID ONSET-SHORTER ONSET TIME- SHORTER DURATION TIME- DISTRIBUTED QUICKLY THROUGHOUT BODY

- MEDICAL RISKS-DAMAGE TO RECTAL TISSUE &MEMBRANE ; INFECTION

PRESCRIPTION OPIOIDS

- PRESCRIPTION OPIOIDS CAN BE USED TO TREAT MODERATE TO SEVERE PAIN AND ARE OFTEN PRESCRIBED FOLLOWING SURGERY OR INJURY, OR FOR HEALTH CONDITIONS SUCH AS CANCER.
- IN RECENT YEARS, THERE HAS BEEN A DRAMATIC INCREASE IN THE ACCEPTANCE AND USE OF PRESCRIPTION OPIOIDS FOR THE TREATMENT OF CHRONIC, NON- CANCER PAIN, SUCH AS BACK PAIN OR OSTEOARTHRITIS DESPITE SERIOUS RISKS.

PRESCRIPTION OPIOIDS (cont'd)

SIDE EFFECTS/RISKS :

- ADDICTION
- ABUSE
- OVERDOSE
- TOLERANCE
- PHYSICAL DEPENDENCE (symptoms of withdrawal when medication is stopped)

PRESRIPTION OPIOIDS

(cont'd)

MOST COMMONLY OVERDOSED
PRESCRIPTION OPIOIDS:

- METHADONE
- OXYCODONE (OXYCONTIN)
- HYDROCODONE (VICODIN)

COMMON PRESCRIPTION PAIN RELIEVERS

- OXYCODONE
(OXYCONTIN;PERCODAN;PERCOCET)
- HYDROCODONE
(VICODIN;LORTAB;LORCET;NORCO)
- DIPHENOXYLATE (LOMOTIL)
- MORPHINE(KADIAN;AVINZA;MS CONTIN)
- CODEINE
- FENTANYL(DURAGESIC)

COMMON PRESCRIPTION PAIN RELIEVERS (cont'd)

- PROPOXYPHENE (BLACK MARKET ONLY-BANNED IN U.S. IN 2010)
- HYDROMORPHONE (DILAUDID HP (injection) AND DILAUDID (pill))
- MEPERIDINE (DEMEROL)
- METHADONE

HEROIN

- HEROIN IS AN OPIOID DRUG MADE FROM MORPHINE . A NATURAL SUBSTANCE TAKEN FROM THE SEED POD OF THE VARIOUS OPIUM POPPY PLANTS .
- HEROIN CAN BE A WHITE OR BROWN POWDER, OR A BLACK STICKY SUBSTANCE KNOWN AS BLACK TAR HEROIN.
- HEROIN CAN BE INJECTED, SNORTED, SNIFFED, SMOKED.



HEROIN (cont'd)

- HEROIN IS KNOWN BY THE FOLLOWING SLANG TERMS: BIG H; HORSE; HELL DUST; SMACK; THUNDER; TRAIN; JUNK; HENRY; SKAG; ANTI-FREEZE, etc.
- SHORT TERM EFFECTS INCLUDE: DRY MOUTH; WARM FLUSHING OF THE SKIN; HEAVY FEELING IN THE ARMS AND LEGS (it is an effort to lift or move them); NAUSEA AND VOMITING; SEVERE ITCHING; CLOUDED MENTAL FUNCTIONING; “NODDING OFF” (CONSCIOUS TO UNCONSCIOUS STATE BACK AND FORTH)

HEROIN (cont'd)

- LONG TERM EFFECTS INCLUDE:
 - INSOMNIA
 - CONSTIPATION AND STOMACH CRAMPING
 - LIVER AND KIDNEY DISEASE
 - LUNG COMPLICATIONS (including pneumonia)
 - DEPRESSION AND ANTI-SOCIAL PERSONALITY DISORDER
 - SEXUAL DYSFUNCTION (men)
 - IRREGULAR MENSTRUAL CYCLES
 - COLLAPSED VEINS (injection)
 - INFECTION OF THE HEART LINING AND VALVES, etc.

WHAT ARE CUTTING AGENTS?

- A “CUTTING AGENT” IS A CHEMICAL OR SUBSTANCE USED TO (cut, dilute, adulterate) RECREATIONAL DRUGS , PRIMARILY SO THE DEALER CAN MAKE MORE MONEY.
- THE “ACTIVE CUT” UTILIZES CHEMICALS, SUBSTANCES, OR INGREDIENTS THAT PUT THE “BITE” BACK INTO THE DRUG SO THE USER IS UNAWARE OF THE DEGREE OF DILUTION.
- THE “INACTIVE CUT” UTILIZES SUBSTANCES TO PUT BACK THE “BULK” BACK INTO THE DRUG.

WHAT IS HEROIN CUT WITH?

DEALERS OFTEN CUT HEROIN WITH ONE OR MORE OF THE FOLLOWING:

- BAKING SODA OR STARCH
- POWDERED MILK
- CAFFEINE
- CRUSHED OTC PAINKILLERS
- SUGAR
- TALCUM POWDER

WHAT IS HEROIN CUT WITH?

(cont'd)

- QUININE
- LAUNDRY DETERGENT
- RAT POISON
- MANNITOL
- FENTANYL (50 TO 100 TIMES MORE POTENT THAN MORPHINE)...STREET NAMES(APACHE; DANCE FEVER; JACKPOT; TNT; MURDER 8; TANGO AND CASH)

WHAT IS HEROIN CUT WITH?

(cont'd)

- CARFENTANIL(100 TIMES MORE POTENT THAN FENTANYL AND 5000 TIMES AS POTENT AS HEROIN AND 10,000 TIMES MORE POTENT THAN MORPHINE)....TRADE NAME IS “WILDNIL”
- CARFENTANIL IS A VETERINARY CHEMICAL USED FOR ANESTHETICS ON LARGE ANIMALS...SIMILAR TO NERVE GAS, IT IS FEARED THAT IT WILL BE USED AS A CHEMICAL WEAPON....SLANG NAMES(TOE TAG DOPE; HE-MAN; BUTTER; GREAT BEAR, etc.)

Lethal doses of Heroin compared to “synthetic” opioids



MEDICATIONS USED TO TREAT OPIOID ADDICTION

- METHADONE(AVAILABLE IN ORAL SOLUTIONS, TABLETS, AND INJECTABLE)
- BUPRENORPHINE(SUBLINGUAL TABLET;INJECTABLE SOLUTION; TRANSDERMAL FILM;)
- SUBOXONE(CONTAINS TWO ACTIVE INGREDIENTS; BUPRENORPHINE AND NALOXONE)....SUBOXONE FILM IS PLACED UNDER TONGUE OR INSIDE YOUR CHEEK IN YOUR MOUTH)

MEDICATIONS USED TO TREAT OPIOID ADDICTION (cont'd)

- NALTREXONE... BRAND NAME("VIVITROL" AND "REVIA", OPIOID RECEPTOR BLOCKERS;ADMINISTERED THROUGH TABLET OR GLUTEAL INTRAMUSCULAR INJECTION.
- NALOXONE ("NARCAN"); ADMINISTRATION BY NASAL SPRAY, INTRAMUSCULAR; TOUTED AS "A LIFE SAVING OPIOID REVERSAL DRUG"
 - NOTE:PA GOVERNOR WOLF HAS SIGNED AN EXECUTIVE ORDER AUTHORIZING THE PA PHYSICIAN GENERAL TO WRITE A STATEWIDE STANDING ORDER FOR NARCAN-AVAILABLE TO FIRST RESPONDERS, POLICE, SCHOOLS, FAMILIES, etc.

RECOMMENDATIONS TO ADDRESS OPIOID EPIDEMIC

- IMPROVE ACCESS TO TREATMENT & RECOVERY SERVICES.
- PROMOTE GREATER USE OF OVERDOSE REVERSING DRUGS.
- ADVANCE BETTER PRACTICES FOR PAIN MANAGEMENT UTILIZING SAFE, EFFECTIVE AND NON-ADDICTIVE STRATEGIES.
- IDENTIFY NEW MEDICATIONS TO TREAT OPIOID USE DISORDERS.
- CONTINUE TO ENHANCE PHARMACEUTICAL MONITORING PROGRAM TO REDUCE “DOCTOR SHOPPING” & “PHARMACY HOPPING”.

RECOMMENDATIONS TO ADDRESS OPIOID EPIDEMIC (cont'd)

- GREATER USE BY PHYSICIANS & OTHER APPROVED PRESCRIBERS OF THE NEW OPIOID PRESCRIBING GUIDELINES DEVELOPED BY ; PENNA. DEPT. OF HEALTH/DEPT. OF DRUG & ALCOHOL PROGRAM/ & PENNA. MEDICAL SOCIETY...CENTER FOR DISEASE CONTROL (CDC)...AMERICAN SOCIETY FOR ADDICTION MEDICINE (ASAM)
- INSURE THAT NO NEW OPIOID DRUG IS APPROVED UNLESS IT HAS DETERRENT PROPERTIES
- STRENGTHEN POST-MARKET REQUIREMENTS FOR DRUG COMPANIES MANDATING THEM TO GENERATE ADDITIONAL DATA ON LONG TERM EFFECTS OF USING OPIOIDS.

RECOMMENDATIONS TO ADDRESS OPIOID EPIDEMIC (cont'd)

- MANDATE UPDATED PRESCRIBER TRAINING ON OPIOIDS INCLUDING AVAILABILITY OF ALTERNATIVE MEDICINE OPTIONS FOR PAIN; ACUPUNCTURE, MEDITATION, PHYSICAL EXERCISE, AROMATHERAPY, CHIROPRACTIC, HYPNOTHERAPY, MASSAGE, RELAXATION THERAPY, GEL PACKS, etc.
- EXPAND WARNINGS AND SAFETY INFORMATION FOR IMMEDIATE RELEASE OPIOIDS.
- IMPROVE RISK AND MITIGATION STRATEGY (REMS) TO ADDRESS POTENTIAL SERIOUS RISKS OF EXTENDED RELEASE (ER) AND LONG ACTING (LA) OPIOIDS.

RECOMMENDATIONS TO ADDRESS OPIOID EPIDEMIC (cont'd)

- EXPAND INFORMATION ON PENNA. STANDING ORDER FOR AVAILABILITY OF NARCAN (NALOXONE) THROUGH STATEWIDE PRESCRIPTION FROM PENNA. PHYSICIAN GENERAL'S OFFICE.(MANY PHYSICIANS, PHARMACIES, FAMILIES, AND GENERAL COMMUNITY ARE UNAWARE OF THIS ORDER)
- ADVERTISE THE FACT THAT BRINGING AN OVERDOSE VICTIM TO EMERGENCY ROOM OR ALERTING AUTHORITIES OF THE NEED FOR A MEDICAL TRANSPORT, WILL NOT RESULT IN AN ARREST.