

Opioid Crisis

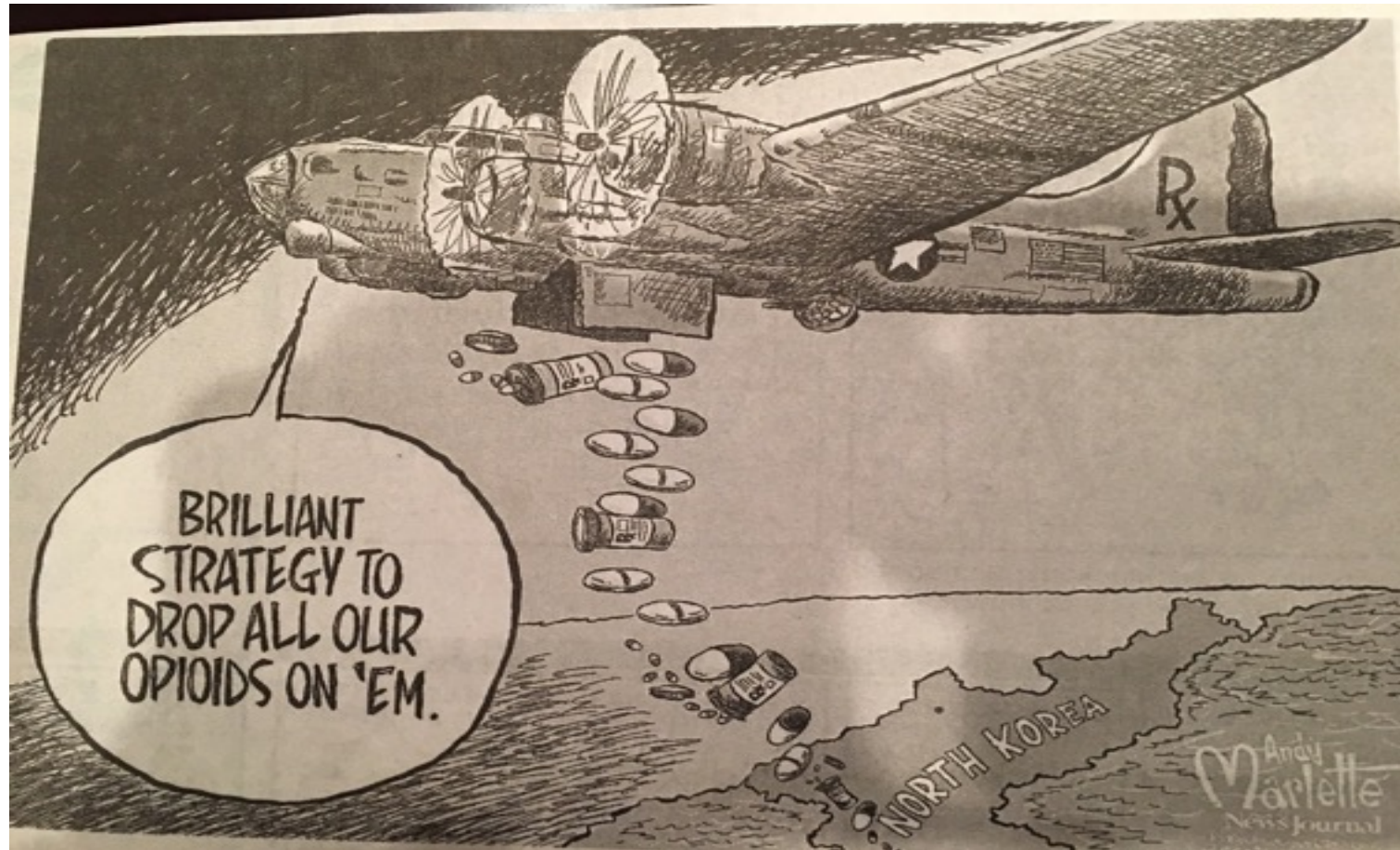
Lance Gooberman, M.D.

Attorney at Law

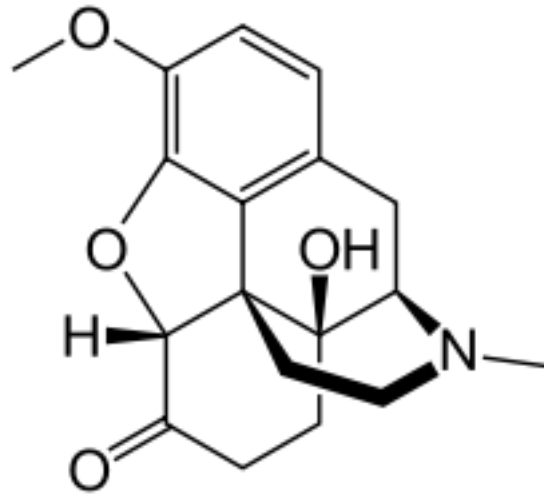
Garden State CLE Presentation

8/16/17 in Cherry Hill, N.J.

August 15, 2017



OXYCONTIN



SACKLER FAMILY



MORTIMER



RICHARD



ARTHUR

Patent



Pharmaceutical Industry



PROMOTION

SALES FORCE
HANDOUTS AND BONUSES
BIG DATA - TARGETING
NON-MALIGNANT PAIN

INADEQUATE TREATMENT

FAKE NEWS
COURT
FEDERATION OF STATE MEDICAL BOARDS
MEDICAL SOCIETIES
THE JOINT COMMISSION.

ADDICTION

Modern Leprosy, Tuberculosis,
Alcoholism

ADDICTION

Condition? Disorder? Disease?

Compliance and Relapse in Selected Medical Disorders

Compliance and Relapse

Insulin-dependent diabetes mellitus

Medication regimen	< 50%
Diet and foot care	< 30%
Relapse*	30-50%

Hypertension requiring medication

Medication regimen	< 30%
Diet	< 30%
Relapse*	50-60%

Asthma

Medication regimen	< 30%
Relapse*	60-80%

* Retreatment within 12 months by physician at emergency room or hospital

The technical name for
ADDICTION is:

Substance Use Disorder

(SUD)

Learning Disorder

People don't "catch" Obsessive Compulsive Disorder (OCD) by simply washing their hands—and, by the same token, they don't develop drug addictions by just taking drugs

TREATMENT

BEHAVIORAL THERAPY

AA (1935)/NA (1953)
Rehabilitation Centers
Criminal Justice System
Drug Courts (1989)
Probation/Parole Programs (ISP)

MEDICATION ASSISTED THERAPY

Methadone (1974)
No DTX required
Naloxone (1963)
Antidote
Naltrexone (1967)
Full DTX required
Buprenorphine (2000)
Partial DTX required

Medication Assisted Treatment (MAT)

Gold Standard

CDC

NIDA

WHO

Harm Reduction

Reduce Crime

Reduce Relapse

Reduce Overdose

Reduce the Mortality Rate



DON'T STOP TREATMENT



**RELAPSE RATE OF
50% IN THE 1ST 30 DAYS
80% IN THE 1ST YEAR**

Brain Disorder

Seizure disorder



ADDICTION LAW



- 2000. DRUG ADDICTION TREATMENT ACT OF 2000 (DATA 2000)
- 2007 OVERDOSE PREVENTION ACT (OPA)
- 2010 AFFORDABLE CARE ACT (ACA)
- 2013 MENTAL HEALTH PARITY ACT AND ADDICTION ACT OF 2008 (MHPAEA)
- 2015 PRESCRIPTION DRUG MONITORING PROGRAM (PDM)
- 2017 ANTI-ADDICTION LEGISLATION

National Emergency

Here's why it's important:

Current Trends in the Opioid
Crisis

Current Trends

Opioid Crisis

FENTANYLS

DEADLY DOSE



A deadly dose of fentanyl is
2 mg, which is equal to just
2 grains of salt.

How much is in your pill?

#FentanylKills



A deadly dose of carfentanil may be as small as 20
micrograms (0.02 mg)

A single snowflake
weighs about
30 micrograms



CARFENTANIL



Fentanyl vs. Carfentanil

One million doses of fentanyl would fit in a shoebox.



One million doses of carfentanil would fit in a golf ball.

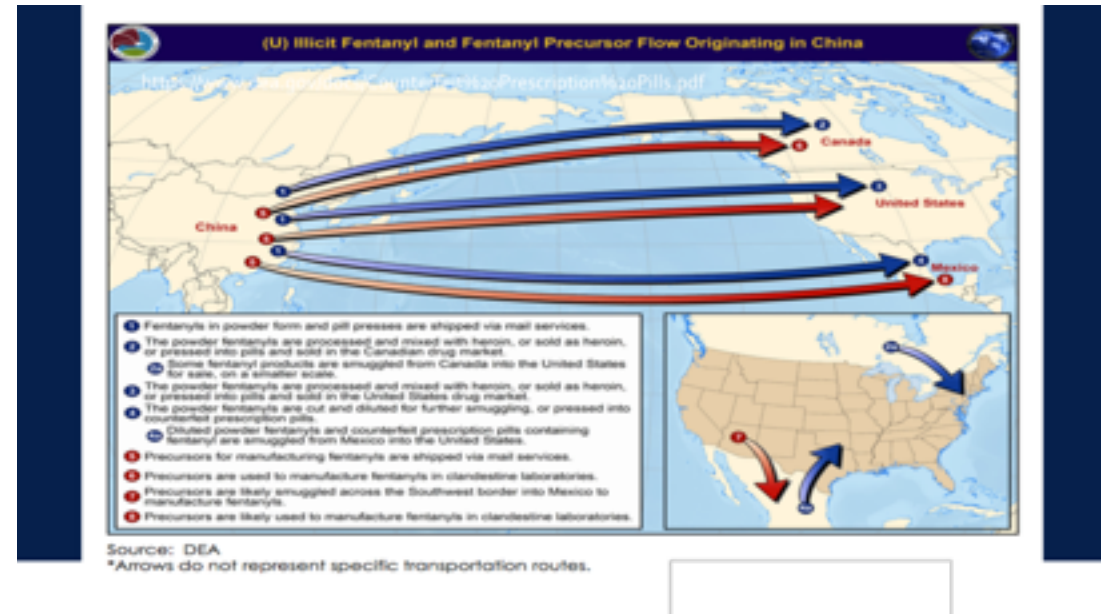


Trending

Fentanyl and Analogs

Formulas

Imports



PILLS

Internet
Presses
Molds

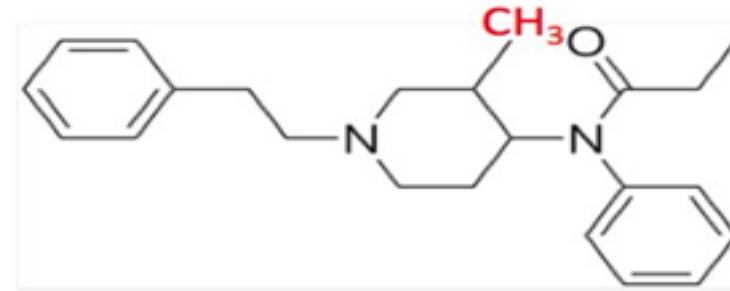
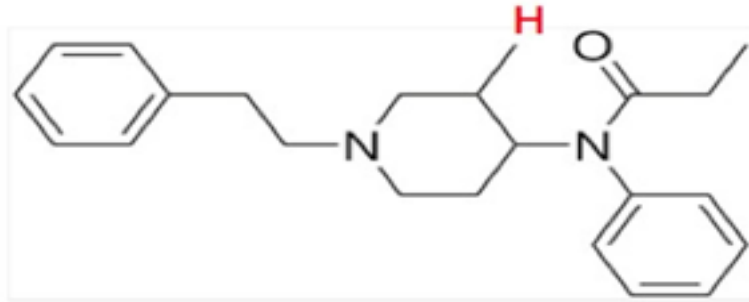
Cottage Industry



A counterfeit prescription pill operation using fentanyl and Other synthetic opiates. Three pill presses, powder mixing Equipment, ventilation equipment, and numerous buckets filled with powder.



FENTANYL ANALOGS



Fentanyl plus one carbon atom -- > 3 methyl fentanyl

Fentanyl is 100 times as potent as Morphine
3 methyl fentanyl is 100 times as potent as Fentanyl or
10,000 times as potent as Morphine

More Synthetic Fentanyls

There are 18 positions for a second methyl group to form a new drug

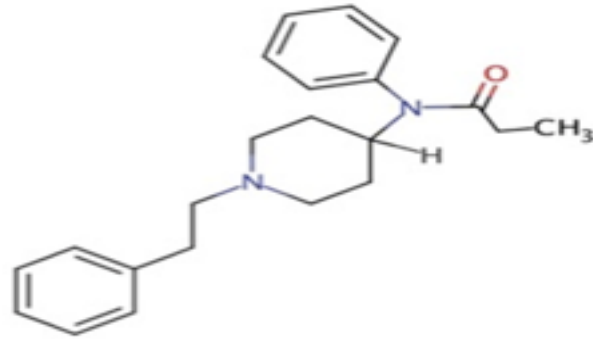
Hundreds of places to add a third methyl group to form new drugs

Other atoms → Millions of different drugs

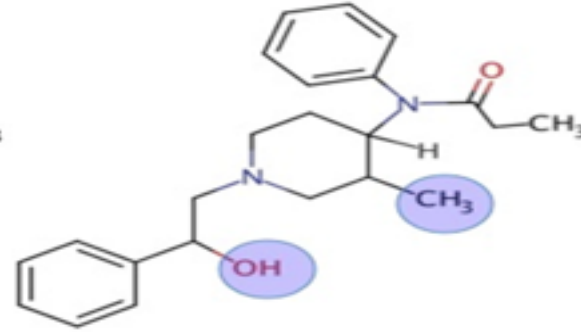
All legal



OHMEFENTANYL



Fentanyl (50 X)



Ohmefentanyl (6,300 X)

Two simple modifications - add a methyl group and a hydroxyl group and
Fentanyl → Ohmefentanyl

Potency is 6.3 times Carfentanil
(126 times Fentanyl or 6,300 morphine)

OHMEFENTANYL

Lethal dose is 0.16 micrograms of Ohmefentanyl

A poppy seed size would kill 1900 people

One ounce (28 grams) would kill 175 million people

Half the population of the United States

WARS

Mexico/Chicago

Afganistan

Assasinations

WMD

CHALLENGES TO FORENSIC TOXICOLOGY LABORATORIES

Mixtures with heroin.

Presence of numerous synthetic analogs.

Blood concentrations in the picogram per milliliter (pg/ml) range tests the limits of detection.

May require up to 10 mg naloxone for reversal followed by naloxone infusion to prevent re-narcotization



United States Patent Office

3,332,950
Patented July 25, 1967

1

2

3,332,950

14-HYDROXYDIHYDRONORMORPHINONE DERIVATIVES

Harold Blumberg, Flushing, Irwin J. Pachter, Woodbury, and Zaven Maloussian, Jamaica, N.Y., assignors to Endo Laboratories, Inc., Garden City, N.Y., a corporation of New York
No Drawing. Filed Dec. 6, 1966, Ser. No. 599,379
7 Claims. (Cl. 260-185)

This application is a continuation-in-part of our pending applications, Ser. No. 267,793 filed Mar. 23, 1963, and Ser. No. 280,750, filed May 15, 1963.

This invention relates to new and useful derivatives of morphine bearing selected substituents on the nitrogen atom, the effect of which is to confer narcotic antagonist properties to the molecules while at the same time conferring useful analgetic activity.

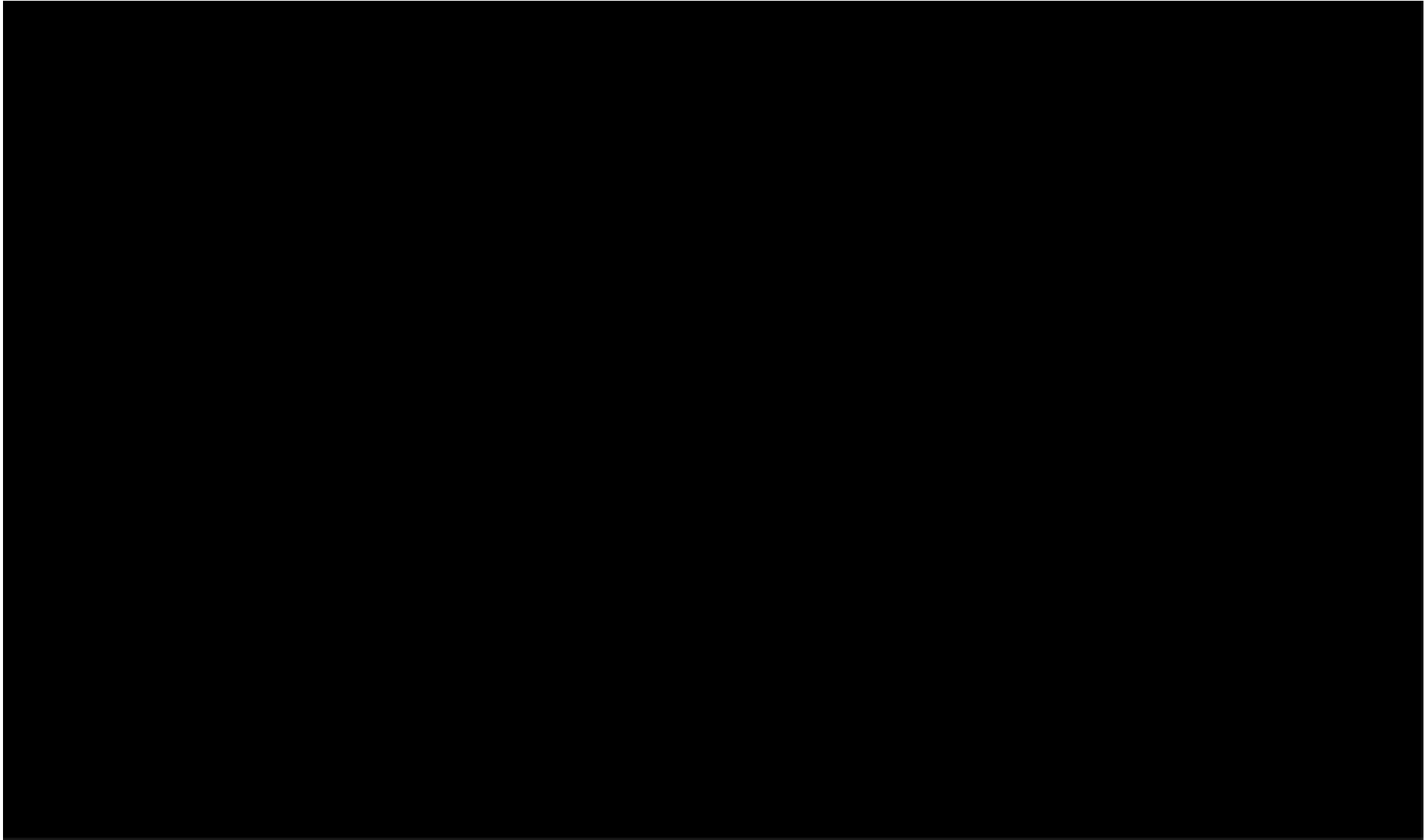
For many years attempts have been made to prepare new derivatives of morphine which are not addicting, retain analgetic potency and yet are relatively free of

wherein R is 3'-methyl-2'-butenyl, cyclopropylmethyl or cyclobutylmethyl.

The preparation of the compounds of this invention may be exemplified by the flow sheet which illustrates the preparation of N-cyclobutylmethyl-14-hydroxydihydronormorphinone. Related procedures afford the other compounds of this invention.

When the substituting reagent is in the oxidized form, powerful reducing agents such as lithium aluminum hydride, potassium borohydride in the presence of lithium chloride, aluminum hydride in the presence of lithium chloride, sodium borohydride in the presence of aluminum chloride, diborane and the like must be employed to reduce the amide carbonyl of the intermediate product. Such reducing agents also reduce ketone carbonyl groups to alcohols. In order to retain the ketone carbonyl in the final product, it may either be protected during the reduction step by temporary conversion into an acetal such as the cyclic ethylene acetal, the cyclic trimethylene acetal, a lower alkyl acetyl such as the dimethyl acetal or the dipropyl acetal, a lower alkyl enol ether, such as the methyl ether, the ethyl ether or the butyl





NALTREXONE ANTIDOTE

**“Better to have it and not need it
than to need it and not have it”**