Provider Perspective on the Use of Topical Pain Products

Committee to Assess the Available Scientific Data Regarding the Safety and Effectiveness of Ingredients used in Compounded Topical Pain Creams

Washington, DC
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Introduction

- Traumatic injuries
  - Violent
  - Collision vs Noncollision
  - Fractures, Sprains, Strains

- Overuse injuries
  - Repetitive microtrauma
  - Stress Fracture, Chondroses, Apophysitis
  - Enthesopathy, Tendonopathy, Bursitis, Neuropathies
Introduction

Evidence Based Medicine

- Stresses the importance of evidence derived from high quality clinical research rather than expert opinion and nonsystematic clinical observations  
  *Gordon Guyatt 1990*

- The conscientious, explicit and judicious use of the “current best evidence” in making the best decision about the care of the individual patient  
  *DL Sackett 1997*
Introduction

Evidence Based Medicine

Individual Clinical Experience

Best External Evidence

Patient Values & Expectations

Introduction

Evidence Based Medicine

Individual Clinical Experience

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Patient Values & Expectations
Introduction

**tissue healing**
Treatment Strategy

- Consider the differential diagnosis
- Myofascial pain and dysfunction of muscle
- Intra articular disorders
- Compensatory nerve entrapment not uncommon
- Paradigm shift: change tissue back to normal
- Maximize nonoperative, noninvasive, least expensive, least risk treatment; except for pros
- Painful, invasive, expensive treatments have a bigger placebo effect
Treatment Options

- Rehab exercises
- Fix underlying cause
- Behavioral modification
- Biomechanics & braces
- Moist heat
- Cryotherapy
- Electrical/Galvanic stim
- Ultrasound

- Laser
- RF ablation
- Dry needle/TPI
- Magnets
- Chiropractic
- ART/MAT
- Massotherapy
- Acupuncture
Treatment Options

- Diet & supplements
- Medications
- NTG patches
- Steroid injections
- Hyaluronic acid
- Shockwave therapy
- Prolotherapy
- Autologous blood
- Platelet rich plasma
- Amniotic tissue
- BMAC
- Fat derived “stem” cell
- Umbilical cord products
- Exosomes
- CBT/psych
- Prayer
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Pain Medication in Orthopedics

**Administration**
- Intravenous
- Inhalation
- Intramuscular
- Oral
- Rectal
- Transdermal
- Topical

**Classes**
- Narcotics
- Anesthetics/caines
- NSAIDS
- TCA
- SSRI/SNRI
- Neuroleptics
- Miscellaneous
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- OTC
- NSAIDS
- Rx
- Compounded
Topical

- OTC
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- Compounded
Compounded Topicals

COMPounding PHARMACIES MARKET

COMPOUNDING PHARMACIES INDUSTRY TO SURPASS $12.5 BN BY 2024

INDUSTRY SIZE (2017)

>8.5 BN

>5% CAGR (2018-24)

Compounding pharmacies market share from geriatric applications

6.7% CAGR (2018-24)

U.S. led NA landscape generating a revenue of $4,781.2 MN in 2017

China CAGR (2018-24): 8%

Germany CAGR (2018-24): 5.4%
Compounded Topicals

Ingredients

- NSAIDS - keto, ibupr, piroxicam, diclofenac
- Relaxants - cyclobenz, baclofen, guafenasin
- Vasodilate - nifedipine, verapamil
- Pain blockers - ketamine, opiates, caines
- Neuro - amitriptyline, gabapentin
- Misc - capsaicin, menthol, clonidine, filler
- Carrier - lipoderm gel, PLO cream
Compounded Topicals

*Personal Use in Sports Medicine*

- Have recommended for chronic MSK disorders
- Most physicians don't know how to prescribe
  - Rely on industry to recommend with little evidence
- Do they work? Efficacy less than, equal, better than other delivery systems?
Compounded Topicals

Efficacy

- N=133 Neuro, Nocioceptive, Mixed  Lido+
  - N=ketamine, gabapentin, clonidine
  - No=ketoprofen, baclofen, cyclobenzaprine
  - M=keta, gaba, diclofenac, bac, cyclob

- 36% vs 28% decrease in pain (≥ 2) at 30 days

Compound pain creams are not better than placebo cream, and their higher costs compared to approved compounds should curtail routine use.
Compounded Topicals

Personal Use in Sports Medicine

- 57 yo female 6 weeks lateral ankle pain
- One steroid injection
- MRI shows peroneal tenodosis
- Surgery 8/18 to repair tendon, 6 weeks NWB, PT, steroid injection, no change
- Pharmacy sent multiple creams, did not work, kept sending, she threw them away
- US guided injection improved SX (for now)

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Hi Dr. Dimeff this is Jill. I was able to find out the names of the topicals that the pharmacy was sending me:
- Lido/prilocan 2.5-2.5%
- Diclofenac 1.5% Sol
- Flurandrenol lot 0.06%

Once again it was a pleasure meeting you and I appreciate the time you took with me.

My ankle isn’t too terrible. A little sore.

It doesn’t say on the paperwork how much they charged my insurance but I will call them first thing Monday morning and ask them. If I find anything out I will text it to you right away.

I don’t mind you using my case at all. I’m happy you’re going to be a voice for people like me whose insurance premiums are ridiculously high.

All the best to you in DC.

I'm a little sore but it's not that bad.

Thankfully, I was able to get the cost on the meds.
- Lido/prilocan $40
- Diclofenac $50.00
- Flurandrenol $200.00

I hope this helps. Have a great day!!
Compounded Topicals

Personal Use in Sports Medicine

- Have recommended for chronic MSK disorders
- Most physicians don’t know how to prescribe
  - Rely on industry to recommend with little evidence
- Do they work? Efficacy less than, equal, better than other delivery systems?
  - Application method is therapeutic
Compounded Topicals

Personal Use in Sports Medicine

- Safer than other deliver systems?
  - Source, purity, contaminants, production, control, derm issues, dose and frequency concerns

- Less expensive?
  - $100s to $1000s per tube charged to insurance

- Not better results than other topical agents

As a result, namely efficacy and expense, I have curtailed my use of compounded topicals
Thank You