2022 CDC Guideline for Prescribing Opioids for Pain

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CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016

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Special Communication

CDC Guideline for Prescribing Opioids for Chronic Pain—United States, 2016

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IMPORTANCE Primary care clinicians find managing chronic pain challenging. Evidence of long-term efficacy of opioids for chronic pain is limited. Opioid use is associated with serious risks, including opioid use disorder and overdose.

OBJECTIVE To provide recommendations about opioid prescribing for primary care clinicians treating adult patients with chronic pain outside of active cancer treatment, palliative care, and end-of-life care.

PROCESS The Centers for Disease Control and Prevention (CDC) updated a 2014 systematic review on effectiveness and risks of opioids and conducted a supplemental review on benefits and harms, values and preferences, and costs. CDC used the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) framework to assess evidence type and determine the recommendation category.

EVIDENCE SYNTHESIS Evidence consisted of observational studies or randomized clinical trials with notable limitations, characterized as low quality using GRADE methodology. Meta-analysis was not attempted due to the limited number of studies, variability in study designs and clinical heterogeneity, and methodological shortcomings of studies. No study evaluated long-term (≥1 year) benefit of opioids for chronic pain. Opioids were associated with increased risks, including opioid use disorder, overdose, and death, with dose-dependent effects.

RECOMMENDATIONS There are 12 recommendations. Of primary importance, nonopioid therapy is preferred for treatment of chronic pain. Opioids should be used only when benefits for pain and function are expected to outweigh risks. Before starting opioids, clinicians should establish treatment goals with patients and consider how opioids will be discontinued if benefits do not outweigh risks. When opioids are used, clinicians should prescribe the lowest effective dosage, carefully reassess benefits and risks when considering increasing dosage to 50 morphine milligram equivalents or more per day, and avoid concurrent opioids and benzodiazepines whenever possible. Clinicians should evaluate benefits and harms of continued opioid therapy with patients every 3 months or more frequently and review prescription drug monitoring program data, when available, for high-risk combinations or dosages. For patients with opioid use disorder, clinicians should offer or arrange evidence-based treatment, such as medication-assisted treatment with buprenorphine or methadone.

CONCLUSIONS AND RELEVANCE The guideline is intended to improve communication about benefits and risks of opioids for chronic pain, improve safety and effectiveness of pain treatment, and reduce risks associated with long-term opioid therapy.

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Background for 2016 CDC guideline

- Need to address prescription opioid prescribing as a public health problem given marked increases in overdoses and OUD
- Guidelines developed by several states and agencies but have inconsistencies in methods and recommendations
- National guidelines don't incorporate the most recent evidence
- Clinicians report uncertainty about how to prescribe opioids and want clear, consistent guidance
- Primary audience: Primary care providers
- Target population: Adults with chronic pain
  - Exclude: Patients undergoing active treatment for cancer, palliative care, end-of-life care

2016 CDC guideline recommendations

- 12 recommendations in 3 areas
  - When to initiate or continue opioids
  - Opioid selection, dosage, duration, follow-up, and discontinuation
  - Assessing risk and addressing harms of opioid use
- All recommendations category A (strong) except 1 recommendation category B (conditional) on urine drug testing
- All evidence for recommendations type 3 (RCTs with notable limitations or observational studies) or type 4 (RCTs with major limitations or observational studies with notable limitations/clinical experience) except 1 category 2 (RCTs with limitations or strong observational studies) on treatment for OUD

2016 CDC guideline principles

- Judicious use of opioids for chronic pain based on individualized risk assessment; nonopioid therapies preferred
- Treatment goals including impact on function as well as pain
- Risk mitigation strategies: Initiation, dose, selection of opioids, co-prescribing, urine drug toxicology, prescription drug monitoring programs, naloxone
- Continuation of opioids based on periodic re-assessment
- Taper or discontinue if benefits don't outweigh harms
- For acute pain, use doses and amount necessary (usually <3 days; rarely >7 days)

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Perspective

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No Shortcuts to Safer Opioid Prescribing

Deborah Dowell, M.D., M.P.H., Tamara Haegerich, Ph.D., and Roger Chou, M.D.

2016 CDC guideline controversies and challenges

- Guideline applied to populations it was not intended for
- Guideline interpreted as prohibiting opioids for chronic pain
- Application of inflexible dose thresholds
  - "…carefully reassess evidence of individual benefits and risks when increasing dosage to ≥50 morphine mg equivalents (MME)/day…*avoid* increasing dosage to ≥90 morphine mg equivalents (MME)/day or *carefully justify* a decision to titrate dose to ≥90 MME."
  - "…empathically review benefits and risks of continued high-dosage therapy…For patients who agree to taper opioids…clinicians should collaborate with the patient on a tapering plan."
- Harms of "forced" tapering and optimal methods for tapering
- Duration parameters for acute pain may be too short for some situations
- Dose and duration thresholds arbitrary

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CDC Clinical Practice Guideline for Prescribing Opioids for Pain — United States, 2022

Prescribing Opioids for Pain — The New CDC Clinical Practice Guideline

Deborah Dowell, M.D., M.P.H., Kathleen R. Ragan, M.S.P.H., Christopher M. Jones, Pharm.D., Dr.P.H., Grant T. Baldwin, Ph.D., M.P.H., and Roger Chou, M.D.

Pain affects the lives of millions of Americans and potentially reduces their level of function, mental health, and quality of life. Yet limited access to pain treatments and lack of clarity regarding the evidence supporting pain treatments prevent many people with pain from accessing the full range of potentially helpful therapies.[1] Furthermore, there are persistent disparities in pain management according to race or ethnic group, gender, socioeconomic status, and population density, among other factors.[2] Opioids continue to be commonly used to treat pain, despite evidence that their short-term benefits are small and despite limited evidence of long-term benefits.[2,3]

In 2016, the Centers for Disease Control and Prevention (CDC) released its Guideline for Prescribing Opioids for Chronic Pain to help primary care clinicians weigh benefits and risks of opioid treatment for chronic pain.[3] The guideline's release was as-

Figure F-1. Meta-analysis of improvement in mean pain measures for opioids versus placebo

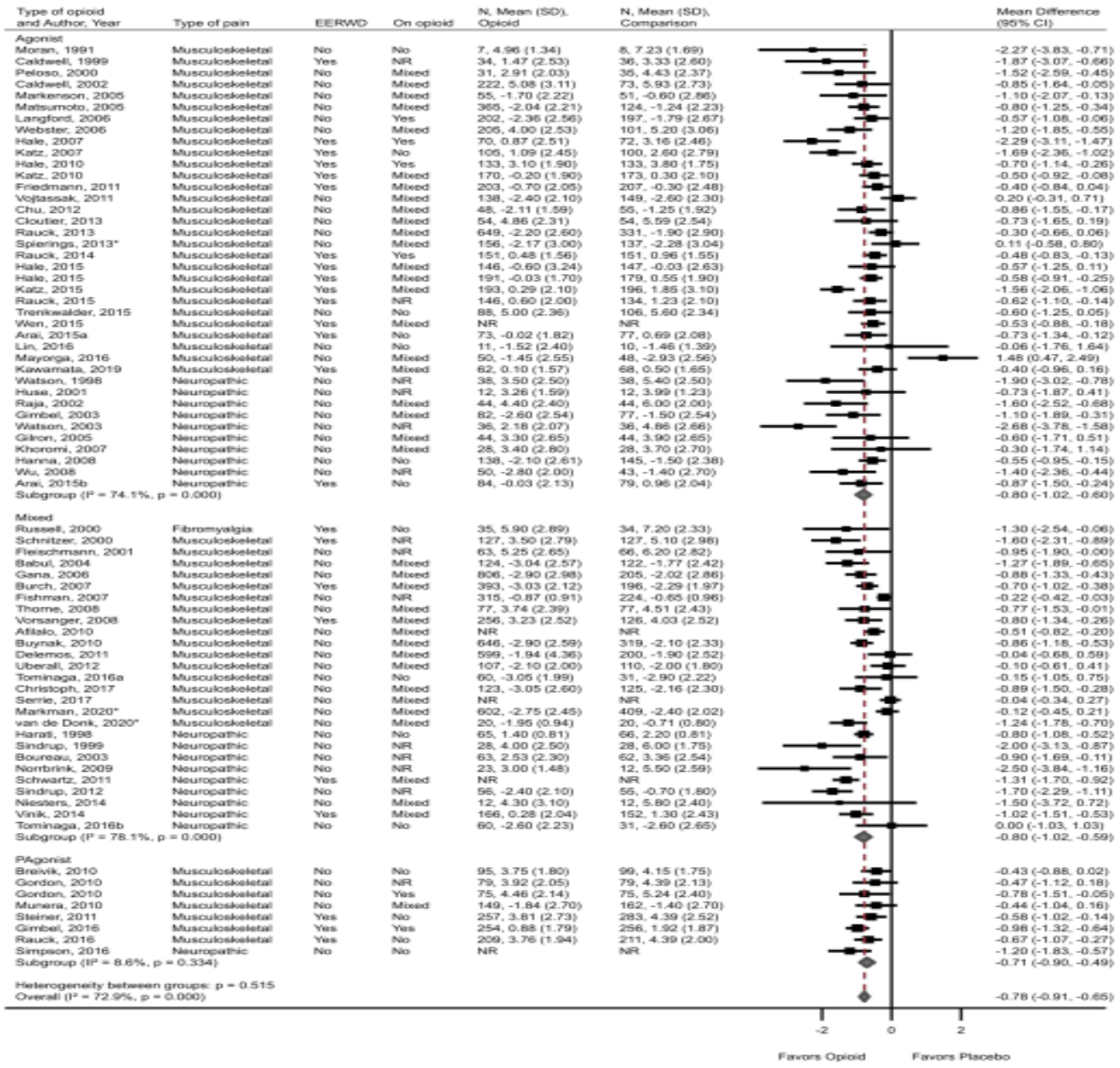
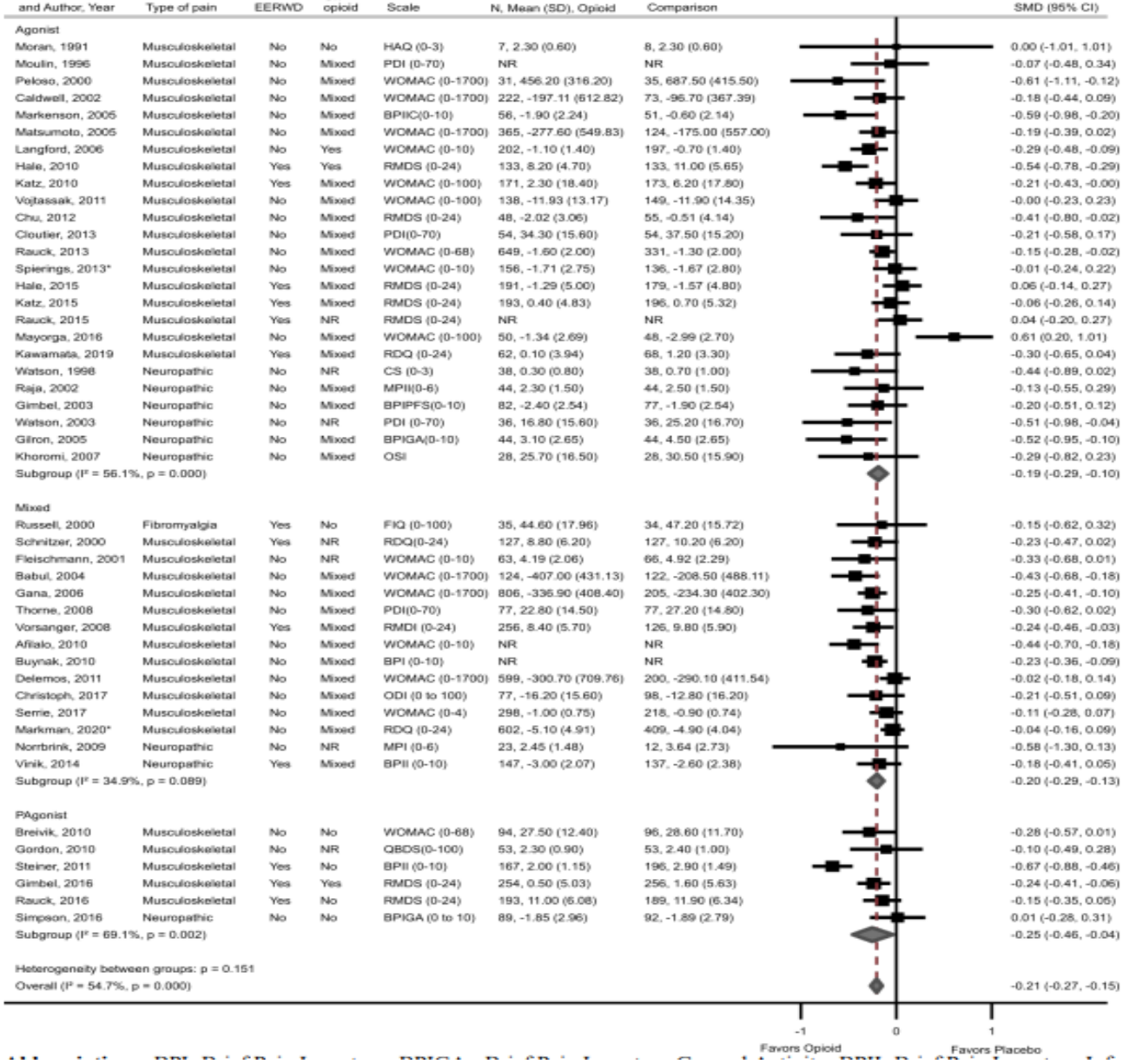


Figure F-3. Meta-analysis of improvement in mean function measures for opioids versus placebo

Type of opioid and Author, Year	Type of pain	EERWD	On opioid	Scale	N, Mean (SD), Opioid	N, Mean (SD), Comparison	SMD (95% CI)
Agonist							
Moran, 1991	Musculoskeletal	No	No	HAQ (0-3)	7, 2.30 (0.60)	8, 2.30 (0.60)	0.00 (-1.01, 1.01)
Moulin, 1996	Musculoskeletal	No	Mixed	PDI (0-70)	NR	NR	-0.07 (-0.48, 0.34)
Peloso, 2000	Musculoskeletal	No	Mixed	WOMAC (0-1700)	31, 456.20 (316.20)	35, 687.50 (415.50)	-0.61 (-1.11, -0.12)
Caldwell, 2002	Musculoskeletal	No	Mixed	WOMAC (0-1700)	222, -197.11 (612.82)	73, -96.70 (367.39)	-0.18 (-0.44, 0.09)
Markenson, 2005	Musculoskeletal	No	Mixed	BPIIC(0-10)	56, -1.90 (2.24)	51, -0.60 (2.14)	-0.59 (-0.98, -0.20)
Matsumoto, 2005	Musculoskeletal	No	Mixed	WOMAC (0-1700)	365, -277.60 (549.83)	124, -175.00 (557.00)	-0.19 (-0.39, 0.02)
Langford, 2006	Musculoskeletal	No	Yes	WOMAC (0-10)	202, -1.10 (1.40)	197, -0.70 (1.40)	-0.29 (-0.48, -0.09)
Hale, 2010	Musculoskeletal	Yes	Yes	RMDS (0-24)	133, 8.20 (4.70)	133, 11.00 (5.65)	-0.54 (-0.78, -0.29)
Katz, 2010	Musculoskeletal	Yes	Mixed	WOMAC (0-100)	171, 2.30 (18.40)	173, 6.20 (17.80)	-0.21 (-0.43, -0.00)
Vojtassak, 2011	Musculoskeletal	No	Mixed	WOMAC (0-100)	138, -11.93 (13.17)	149, -11.90 (14.35)	-0.00 (-0.23, 0.23)
Chu, 2012	Musculoskeletal	No	Mixed	RMDS (0-24)	48, -2.02 (3.06)	55, -0.51 (4.14)	-0.41 (-0.80, -0.02)
Cloutier, 2013	Musculoskeletal	No	Mixed	PDI(0-70)	54, 34.30 (15.60)	54, 37.50 (15.20)	-0.21 (-0.58, 0.17)
Rauck, 2013	Musculoskeletal	No	Mixed	WOMAC (0-68)	649, -1.60 (2.00)	331, -1.30 (2.00)	-0.15 (-0.28, -0.02)
Spierings, 2013*	Musculoskeletal	No	Mixed	WOMAC (0-10)	156, -1.71 (2.75)	136, -1.67 (2.80)	-0.01 (-0.24, 0.22)
Hale, 2015	Musculoskeletal	Yes	Mixed	RMDS (0-24)	191, -1.29 (5.00)	179, -1.57 (4.80)	0.06 (-0.14, 0.27)
Katz, 2015	Musculoskeletal	Yes	Mixed	RMDS (0-24)	193, 0.40 (4.83)	196, 0.70 (5.32)	-0.06 (-0.26, 0.14)
Rauck, 2015	Musculoskeletal	Yes	NR	RMDS (0-24)	NR	NR	0.04 (-0.20, 0.27)
Mayorga, 2016	Musculoskeletal	No	Mixed	WOMAC (0-100)	50, -1.34 (2.69)	48, -2.99 (2.70)	0.61 (0.20, 1.01)
Kawamata, 2019	Musculoskeletal	Yes	Mixed	RDQ (0-24)	62, 0.10 (3.94)	68, 1.20 (3.30)	-0.30 (-0.65, 0.04)
Watson, 1998	Neuropathic	No	NR	CS (0-3)	38, 0.30 (0.80)	38, 0.70 (1.00)	-0.44 (-0.89, 0.02)
Raja, 2002	Neuropathic	No	Mixed	MPII(0-6)	44, 2.30 (1.50)	44, 2.50 (1.50)	-0.13 (-0.55, 0.29)
Gimbel, 2003	Neuropathic	No	Mixed	BPIPFS(0-10)	82, -2.40 (2.54)	77, -1.90 (2.54)	-0.20 (-0.51, 0.12)
Watson, 2003	Neuropathic	No	NR	PDI (0-70)	36, 16.80 (15.60)	36, 25.20 (16.70)	-0.51 (-0.98, -0.04)
Gilron, 2005	Neuropathic	No	Mixed	BPIGA(0-10)	44, 3.10 (2.65)	44, 4.50 (2.65)	-0.52 (-0.95, -0.10)
Khoromi, 2007	Neuropathic	No	Mixed	OSI	28, 25.70 (16.50)	28, 30.50 (15.90)	-0.29 (-0.82, 0.23)
Subgroup (I^2 = 56.1%, p = 0.000)							-0.19 (-0.29, -0.10)
Mixed							
Russell, 2000	Fibromyalgia	Yes	No	FIQ (0-100)	35, 44.60 (17.96)	34, 47.20 (15.72)	-0.15 (-0.62, 0.32)
Schnitzer, 2000	Musculoskeletal	Yes	NR	RDQ(0-24)	127, 8.80 (6.20)	127, 10.20 (6.20)	-0.23 (-0.47, 0.02)
Fleischmann, 2001	Musculoskeletal	No	NR	WOMAC (0-10)	63, 4.19 (2.06)	66, 4.92 (2.29)	-0.33 (-0.68, 0.01)
Babul, 2004	Musculoskeletal	No	Mixed	WOMAC (0-1700)	124, -407.00 (431.13)	122, -208.50 (488.11)	-0.43 (-0.68, -0.18)
Gana, 2006	Musculoskeletal	No	Mixed	WOMAC (0-1700)	806, -336.90 (408.40)	205, -234.30 (402.30)	-0.25 (-0.41, -0.10)
Thorne, 2008	Musculoskeletal	No	Mixed	PDI(0-70)	77, 22.80 (14.50)	77, 27.20 (14.80)	-0.30 (-0.62, 0.02)
Vorsanger, 2008	Musculoskeletal	Yes	Mixed	RMDI (0-24)	256, 8.40 (5.70)	126, 9.80 (5.90)	-0.24 (-0.46, -0.03)
Affalo, 2010	Musculoskeletal	No	Mixed	WOMAC (0-10)	NR	NR	-0.44 (-0.70, -0.18)
Buynak, 2010	Musculoskeletal	No	Mixed	BPI (0-10)	NR	NR	-0.23 (-0.36, -0.09)
Delemos, 2011	Musculoskeletal	No	Mixed	WOMAC (0-1700)	599, -300.70 (709.76)	200, -290.10 (411.54)	-0.02 (-0.18, 0.14)
Christoph, 2017	Musculoskeletal	No	Mixed	ODI (0 to 100)	77, -16.20 (15.60)	98, -12.80 (16.20)	-0.21 (-0.51, 0.09)
Serrie, 2017	Musculoskeletal	No	Mixed	WOMAC (0-4)	298, -1.00 (0.75)	218, -0.90 (0.74)	-0.11 (-0.28, 0.07)
Markman, 2020*	Musculoskeletal	No	Mixed	RDQ (0-24)	602, -5.10 (4.91)	409, -4.90 (4.04)	-0.04 (-0.16, 0.09)
Norrbrink, 2009	Neuropathic	No	NR	MPI (0-6)	23, 2.45 (1.48)	12, 3.64 (2.73)	-0.58 (-1.30, 0.13)
Vinik, 2014	Neuropathic	Yes	Mixed	BPII (0-10)	147, -3.00 (2.07)	137, -2.60 (2.38)	-0.18 (-0.41, 0.05)
Subgroup (I^2 = 34.9%, p = 0.089)							-0.20 (-0.29, -0.13)
PAgonist							
Breivik, 2010	Musculoskeletal	No	No	WOMAC (0-68)	94, 27.50 (12.40)	96, 28.60 (11.70)	-0.28 (-0.57, 0.01)
Gordon, 2010	Musculoskeletal	No	NR	QBDS(0-100)	53, 2.30 (0.90)	53, 2.40 (1.00)	-0.10 (-0.49, 0.28)
Steiner, 2011	Musculoskeletal	Yes	No	BPII (0-10)	167, 2.00 (1.15)	196, 2.90 (1.49)	-0.67 (-0.88, -0.46)
Gimbel, 2016	Musculoskeletal	Yes	Yes	RMDS (0-24)	254, 0.50 (5.03)	256, 1.60 (5.63)	-0.24 (-0.41, -0.06)
Rauck, 2016	Musculoskeletal	Yes	No	RMDS (0-24)	193, 11.00 (6.08)	189, 11.90 (6.34)	-0.15 (-0.35, 0.05)
Simpson, 2016	Neuropathic	No	No	BPIGA (0 to 10)	89, -1.85 (2.96)	92, -1.89 (2.79)	0.01 (-0.28, 0.31)
Subgroup (I^2 = 69.1%, p = 0.002)							-0.25 (-0.46, -0.04)
Heterogeneity between groups: p = 0.151							
Overall (I^2 = 54.7%, p = 0.000)							-0.21 (-0.27, -0.15)



2022 CDC Guideline Update

- Series of reviews and updates on chronic and acute pain commissioned to inform an updated guideline
  - Small short-term benefits of opioids vs. placebo in chronic pain
    - One long-term (1-year) trial (SPACE) found similar results for stepped therapy starting with opioid vs. non-opioid for chronic LBP/osteoarthritis
  - Opioids and non-opioid analgesics similarly effective for chronic and acute pain
  - Some non-pharmacological therapies similarly effective as opioids for chronic pain
  - Consistent dose-dependent risk of overdose in observational studies
  - Association between use of opioids for acute pain and longer-term use
  - Some studies reported harms with rapid opioid tapers and abrupt discontinuations, but studies had methodological limitations

Comparison to 2016 Guidelines

- General approach (judicious, individualized used of opioids for chronic pain with close monitoring and risk mitigation) unchanged
- Emphasis on general principles in recommendations, rather than specific levels/doses, to avoid inflexible application
- Additional guidance on tapering, including emphasis on slower tapers and strategies to mitigate harms and increase success
- Additional guidance on use of opioids for acute pain and need for re-assessment in patients receiving opioids for 1 to 3 months (subacute pain)
- Addition of guiding principles to facilitate equitable/individualized implementation of recommendations

Guiding Principles

- Appropriately assess and treat pain independent of whether opioids are part of a treatment regimen
- Recommendation are voluntary and are intended to support, not supplant, individualized, person-centered care
- Utilize a multimodal and multidisciplinary approach to pain management
- Do not misapply the guideline beyond its intended use
- Address and reduce health inequities, ensure affordable and appropriate access

Summary

- 2016 CDC guideline provided guidance on a critical public health issue
- Concerns of unintended consequences from guideline misapplication
- Updated evidence review primarily reinforced findings used to inform 2016 guideline; expanded to address acute pain
- 2022 CDC guideline retains judicious, individualized approach to use of opioids but attempts to reduce misapplication by focusing on general principles rather than specific levels/parameters
  - Additional guidance on acute/subacute pain, tapering
- General principles to manage pain added
- Implementation and evaluation efforts ongoing