### Background
Chronic pain in the pediatric population is a significant problem with estimates that 20% to 35% of children and adolescents are affected by it worldwide. The total costs to society incurred by care for children and adolescents with moderate to severe chronic pain in the US has been estimated at over $19.5 billion annually. Consensus among experts favors a new definition of chronic pain as “pain that extends beyond the expected period of healing” rather than specifying a singular duration for a group of heterogeneous etiologies. “Primary pain disorders” (previously described as “functional pain syndromes”) describe chronic pain that cannot be explained by appropriate medical assessment in terms of biochemical or structural abnormalities. They are associated with significant disruption of everyday life and are not typically responsive to conventional unimodal medical therapy. They often entail expenditure of significant time, medical and financial resources. Persistent treatment failures in these patients can lead to implications that their pain is not organic and therefore not real or serious, and often leads to stigmatization and further loss of function.

### Initial Evaluation

#### Pertinent History:
- signs and symptoms of injury, illness, prior surgeries or procedures.
- location
- frequency
- duration
- type of sensation - sharp, shooting, burning, migrating, dull, throbbing, tightening,
- ameliorating and exacerbating factors
- associated signs and symptoms - fever, swelling, redness, fatigue, depression
- functional impact - school absences, sleep disturbance, limitation of activity, social isolation
- current and prior management approaches - pharmacologic and non-pharmacologic

Psychosocial assessment also to include parental history of chronic conditions, types of parent-child relationships and interactions, perceptions of child’s condition, expectations and coping mechanisms.

#### Physical Exam:
- Vital signs, height and weight.
- Musculoskeletal: strength, range of motion, tenderness, functional assessment, asymmetry.
- Neurological: gait and balance, reflexes; funduscopic exam if headache.
- Expanded abdominal exam as indicated.
# Co-Management Guideline

## Pediatric Advanced Care Team (PACT) 
Pediatric Chronic Pain

| Initial Management | Discern presence or absence of biochemical and/or structural abnormalities (chronic pain versus primary pain syndrome). Proceed with targeted multimodal therapy. **Referral is indicated if unable to provide multimodal/multidisciplinary therapy.** Successful management of both chronic and primary pain requires improvement of or return to functional baseline; important to educate families that return to normal function happens before pain relief occurs – not the other way around as is commonly expected. The pain may actually get worse before it improves.  

**Multimodal therapy includes:**  
1) **Physical therapy** on a regular basis (as determined by PT consultation)  
2) **Active mind-body techniques** (guided imagery, relaxation, distraction, mindfulness, yoga, hypnosis, breathing techniques, biofeedback); involves actively practicing one or more of these daily  
3) **Psychological intervention:** targeted therapy for anxiety and/or depression if indicated, cognitive behavioral therapy; parental and family counseling to decrease catastrophizing, hypervigilance, other maladaptive behaviors; build resilience, coping mechanisms, model positive behaviors  
4) **Normalization of life:** resuming normal participation or improvement in school, athletics, sleep, daily activities, socialization  

**Simplify and minimize use of pharmacologic agents:** Avoid all opioids. Acetaminophen and/or NSAIDs for short term use only. Judicious use of topical analgesics (diclofenac, lidocaine). Consider melatonin if needed for sleep. Consider referral before starting gabapentinoids, tricyclic antidepressants, alpha-agonists, SSRIs or SNRIs.  

Consider adding passive integrative therapies if available and indicated: massage, aromatherapy, accupressure, acupuncture.  

Schedule regular follow-up, include program of physical therapy and counseling. Continue to monitor signs and symptoms. |
| Pre-Visit Work Up | Medical record to include H&P, office visits, lab and imaging results, medications. |
### Pediatric Advanced Care Team, Pain Team or Specialist

When to Refer: if unable to provide multimodal therapy – in addition to primary provider, typically involves multidisciplinary input (physical therapist, social work, psychologist or behavioral therapist, child life, school counselors). Or, if despite providing multimodal therapy, patient experiences:
- worsening pain
- increased missed school days or progressive loss of function
- prolonged headache or abdominal pain
- chronic sleep disturbance
- persistent need for treatment with medication, escalation of dosing, polypharmacy
- need for extensive family counseling, persistence of parental maladaptive behaviors
- patients with multiple sites or types of refractory pain (complex, persistent, acute-on-chronic)
- significant comorbidities
- unmet need for complex care coordination or care management
- uncertain diagnosis

### Co-management Strategy (as appropriate)

**Specialist scope of care:**
Additional evaluation, formalized multimodal therapeutic approach, treatment until improved and stabilized.

**Primary care scope of care:**
Continue routine well care

### Return to Primary Care Endpoint
Care to be transferred back to primary care provider after normalizing function, pain is improved and effective management plan is established.

### Guideline Referenced
[https://doi.org/10.3390/children3040042](https://doi.org/10.3390/children3040042)