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# Perception of Breakthrough Pain in Patients with Chronic Painful Conditions

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# Background

- Breakthrough pain has been defined as "a transitory increase in pain to greater than moderate intensity, which occurs on a baseline pain of moderate intensity or less in a patient receiving chronic opioid therapy" 1
- However, pain flares may also be experienced by patients with medical conditions that are not routinely treated with opioids
- An understanding of how patients characterize their pain flares will improve the scientific and clinical communities' ability to communicate with this population

1. Portenoy RK, Hagen NA. Breakthrough pain: Definition, prevalence, and characteristics. Pain 11990;41:273-81

# Objective

• To understand how patients with chronic non-cancer pain define and describe pain flares

# Study Design

- A 3-month prospective, observational study of outpatients at a large U.S. tertiary care center
- Follow-up consisted of a 1 week diary administered at baseline, then a monthly telephone survey for 3 consecutive months

# Methods

### **Sample Population**

- Patients who had chronic pain due to one or more of the following medical conditions:
  - Musculoskeletal problems (back, knee, shoulder, neck,
  - and other areas) Rheumatological diseases (arthritis, lupus, and others)
  - Chronic headache
- Sickle cell anemia

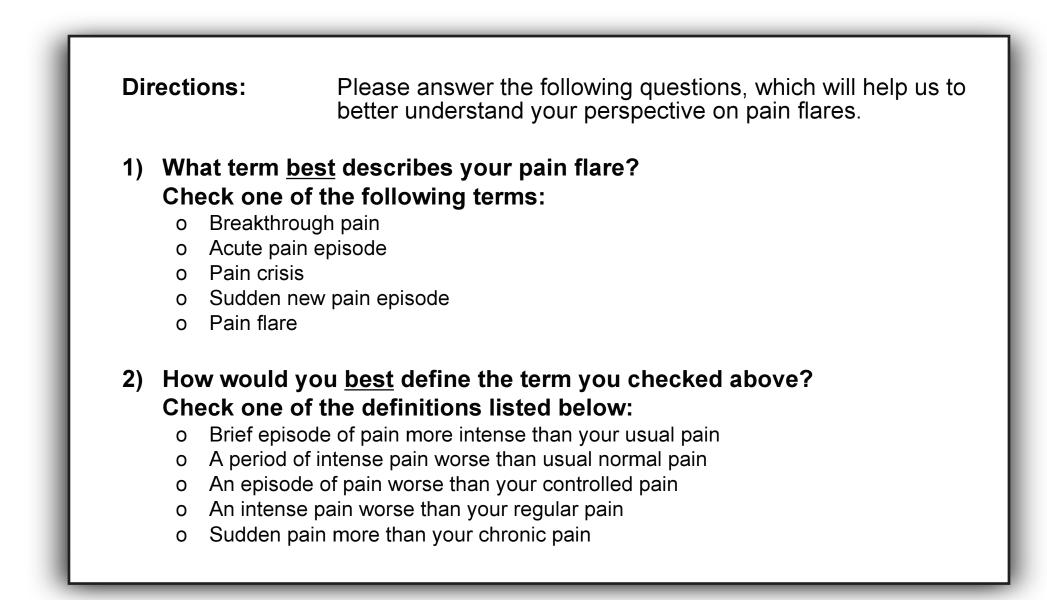
### **Eligibility Criteria**

- Inclusions
  - Patients with chronic pain meeting the following definition: "Chronic pain is pain that continues a month or more beyond the usual recovery period for an injury or illness or that goes on for months or years due to a chronic condition. The pain is usually not constant, but can interfere with daily life at all levels."2
  - Age ≥18 years
- Exclusions
  - Patients who were not able to communicate in English sufficiently well to complete the required follow-up
  - Patients deemed to be inappropriate for participation by their physician
- 2. American Chronic Pain Association. Definition of Chronic Pain. Available at: http://www.theacpa.org

### **Data**

- A Pain Flare Definitions Questionnaire was administered at baseline
  - A short-two item instrument developed by United **BioSource Corporation**
  - Patients were asked to choose a term that best describes a pain flare and a definition of the term they selected
- Pain scores were captured using a 10-point scale
- 0 = "No Pain"; 10 = "Worst Pain Imaginable"

### **Pain Flare Definitions Questionnaire**

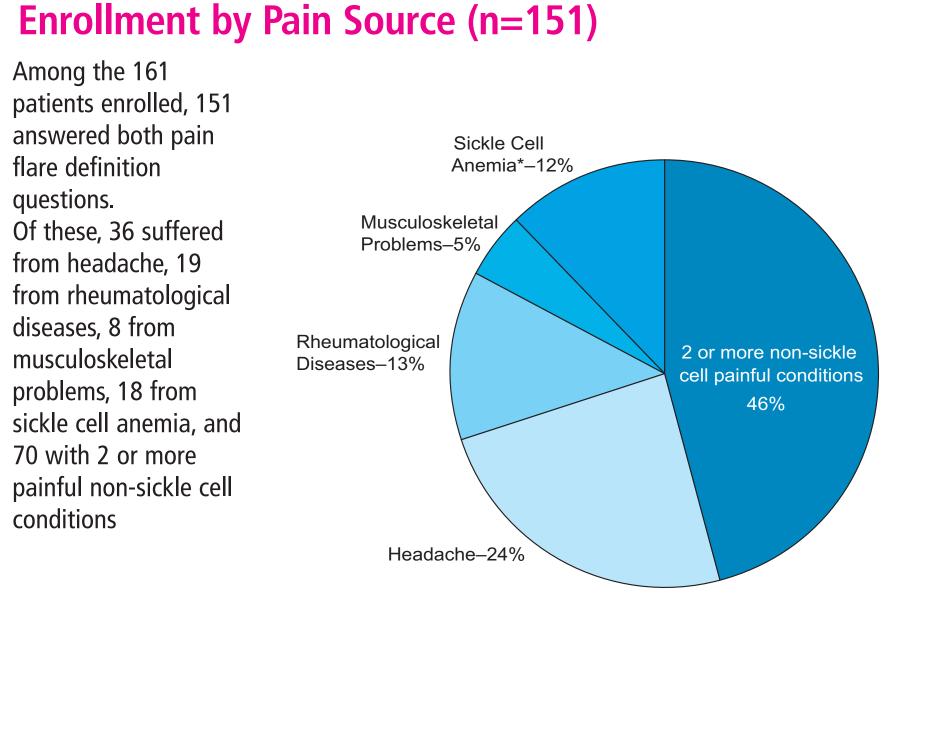


## Results

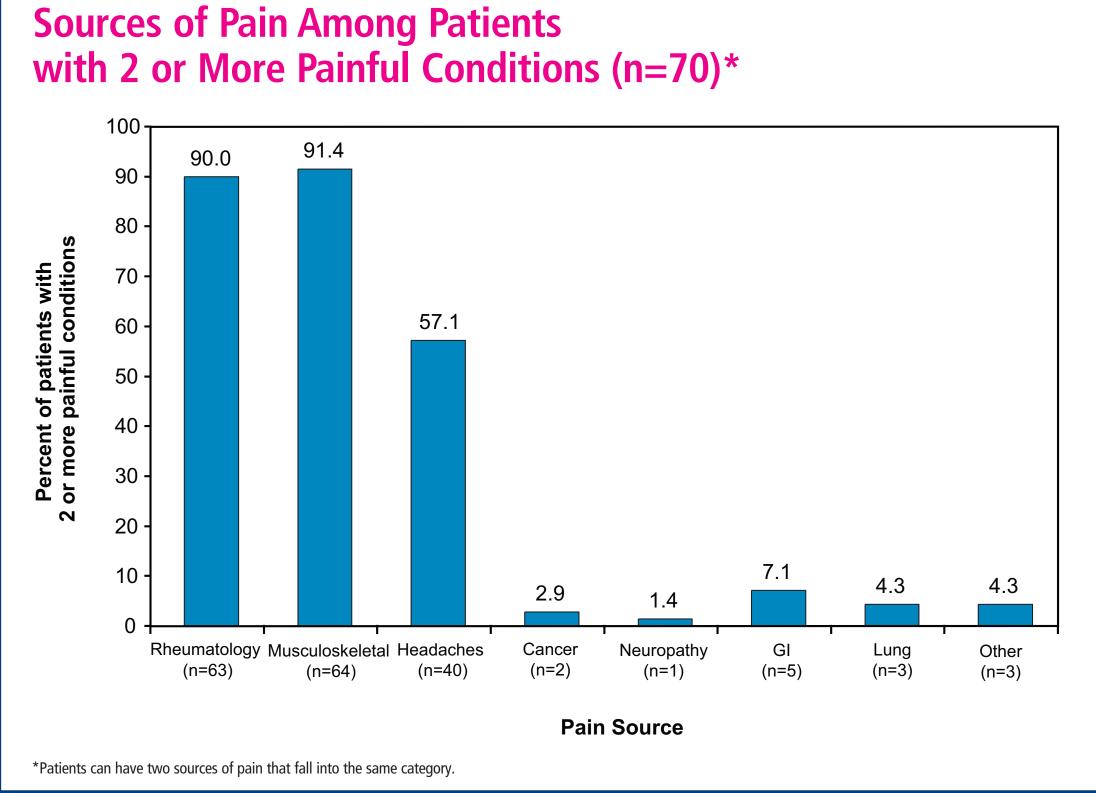
week (88%).

### **Demographics** A total of 161 participants completed the diary. Most were female (79%), Caucasian (68%), and experienced at least 1 pain flare during the diary

Gender	n	%
Females	127	79%
Males	34	21%
Ethnicity	n	%
Caucasian	106	68%
African American	45	29%
Hispanic	4	3%
Asian	1	1%
Other	1	1%
At Least 1 Pain Flare During Diary Week	n	%
Yes	141	88%
No	15	9%



# **Sources of Pain Among Patients**

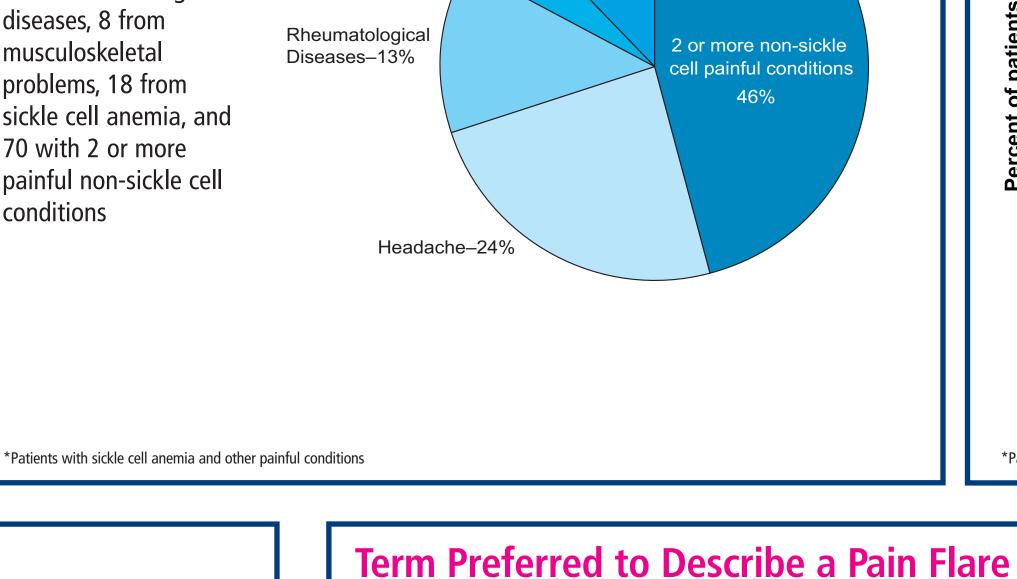


## **Demographics**

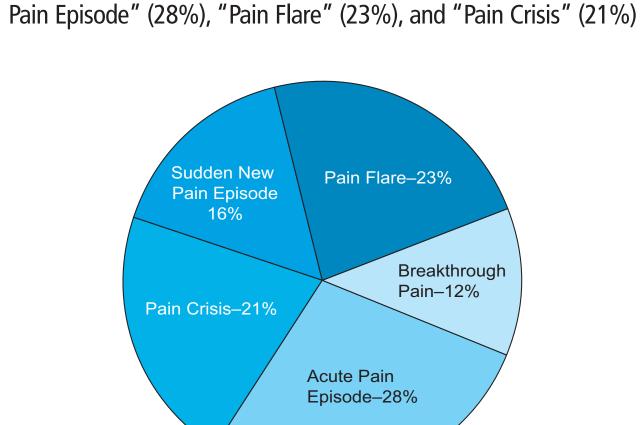
The mean pain level reported during the diary week was 6, and the mean age was 47 years.

		Median	SD	Range
159	5.77	6	2.1	0.0-10.0
161	47.44	48	14.34	18.0-83.0

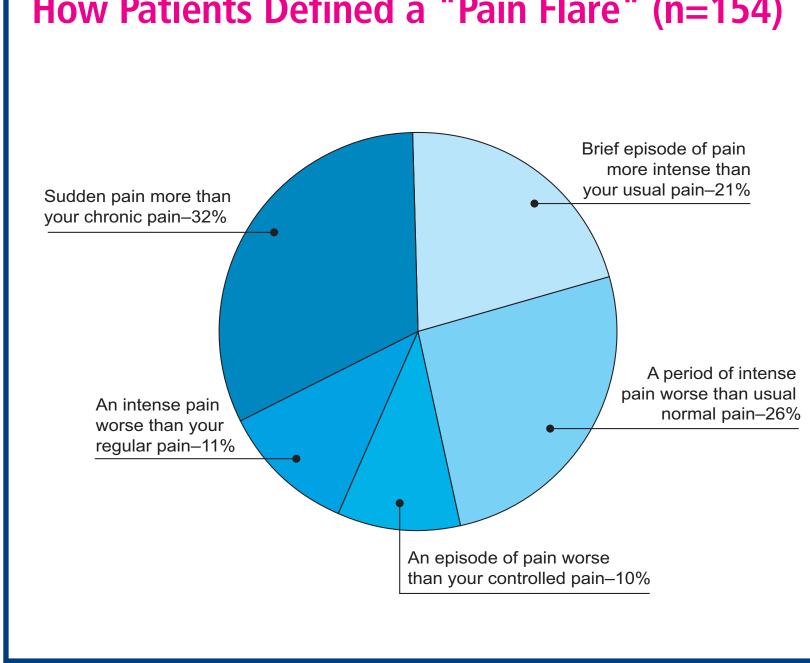
\*Pain scores based on 10-point scale with 0 described as "No Pain" and 10 described as the "Worst Pain Imaginable"

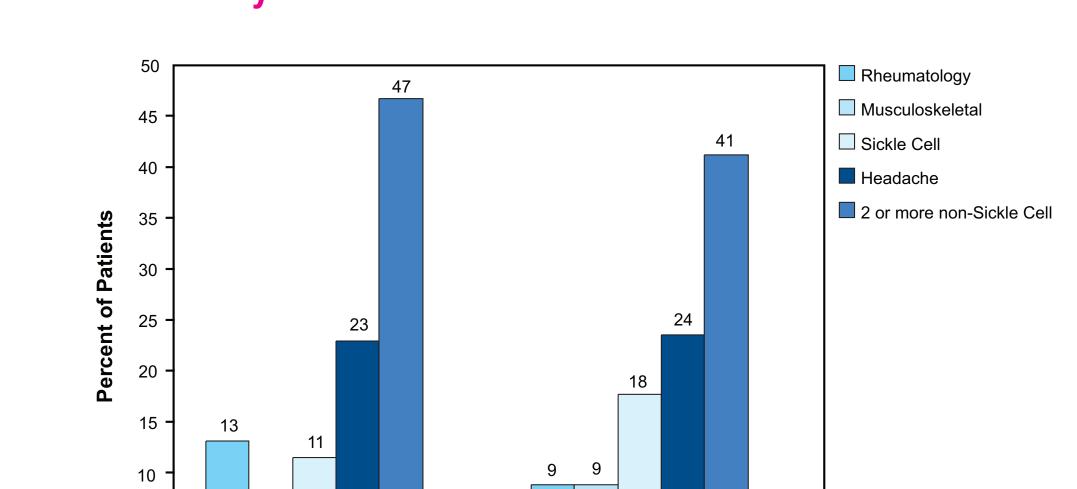


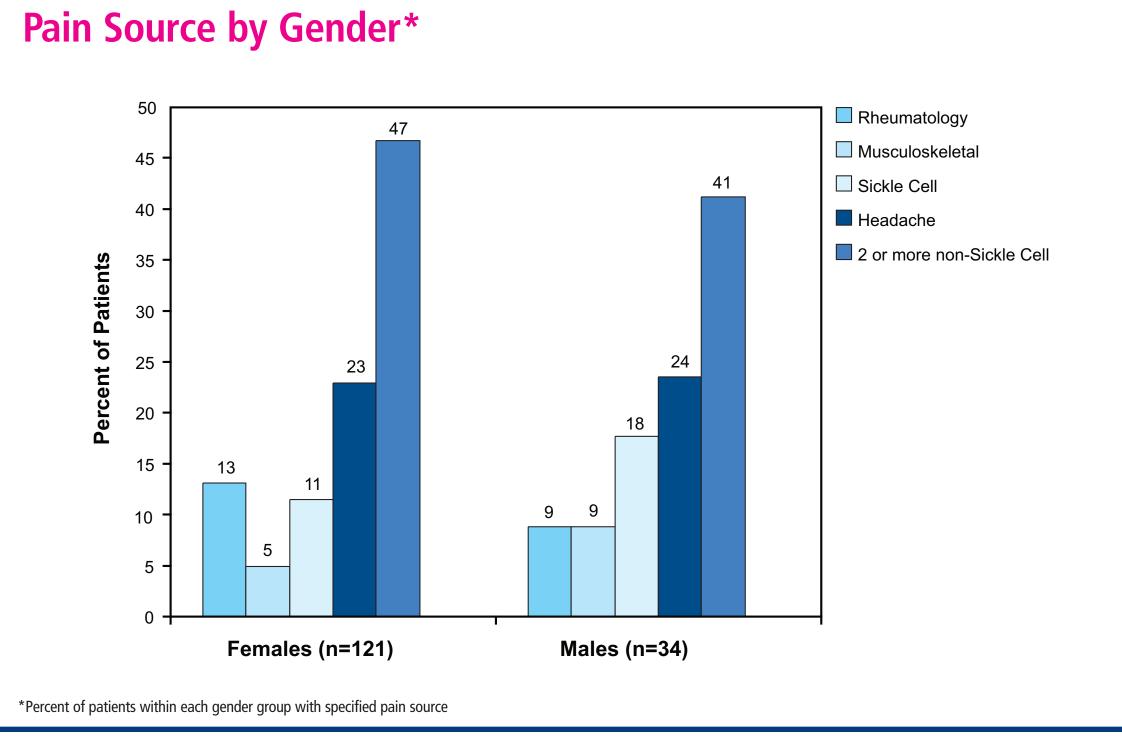
## (n=155)The most common terms used to describe a pain flare were "Acute

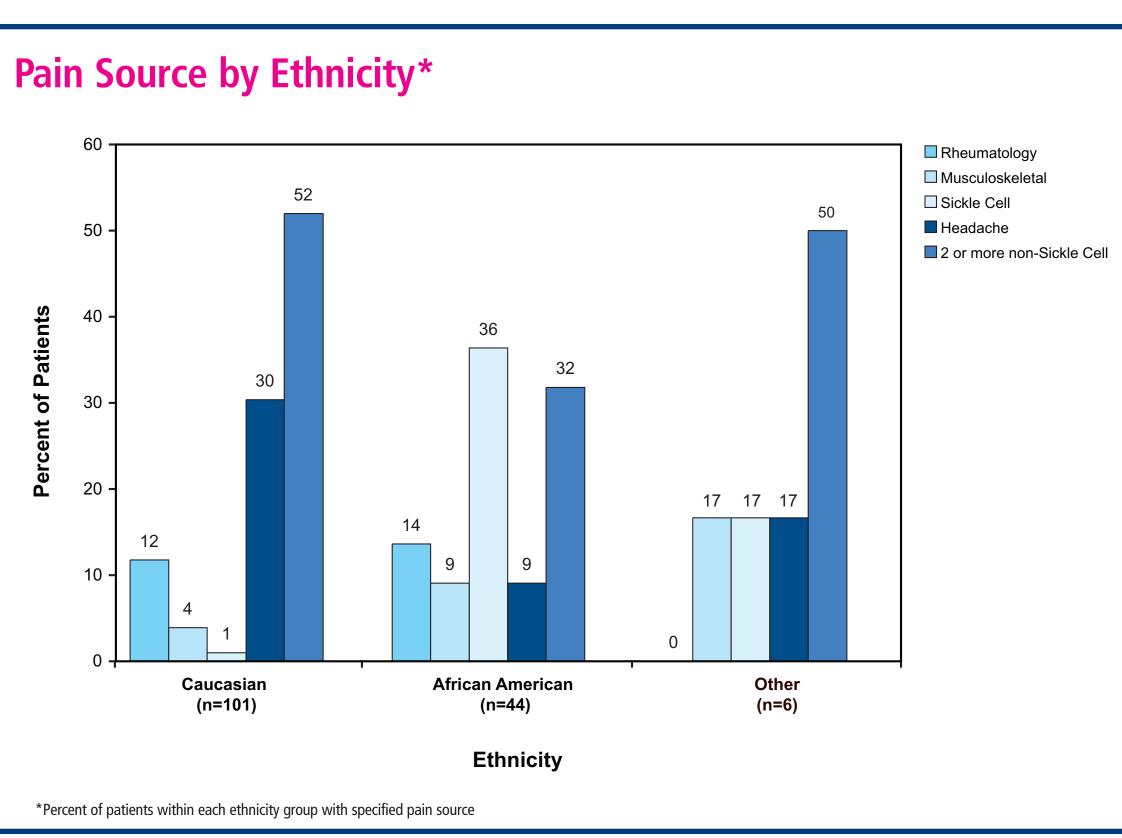


## **How Patients Defined a "Pain Flare" (n=154)**









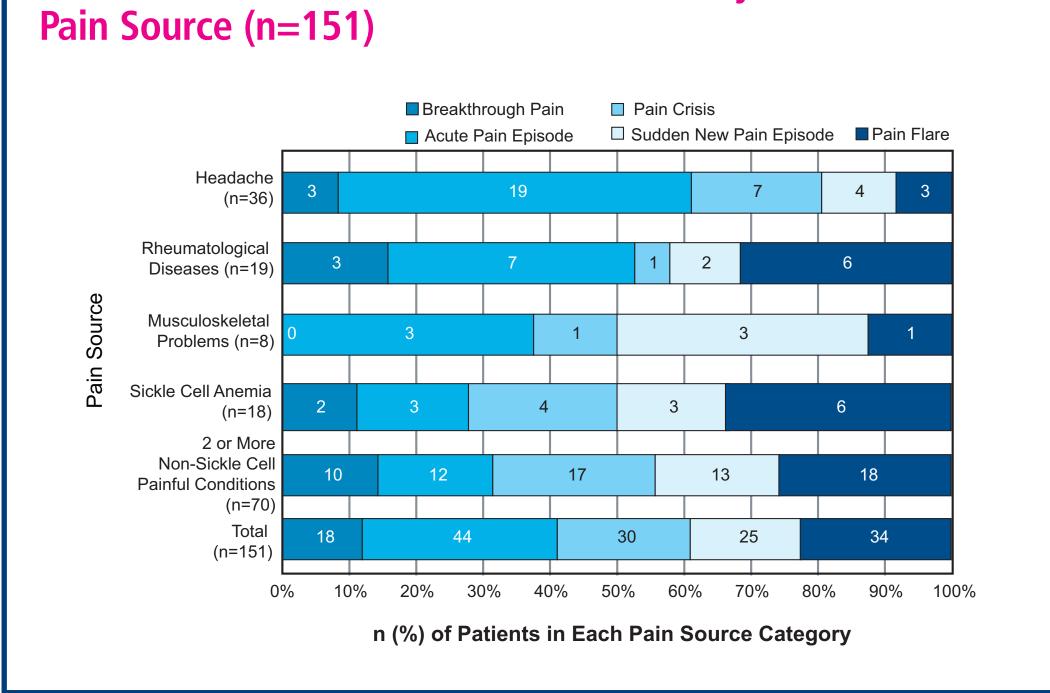
## Disclosure

- This study was funded through an Investigator Sponsored Research grant from Cephalon, Inc.
- Results reflect slight changes to numbers presented in the published abstract because poster analyses are limited to those who responded to both items in the Pain Flare **Definitions Questionnaire**

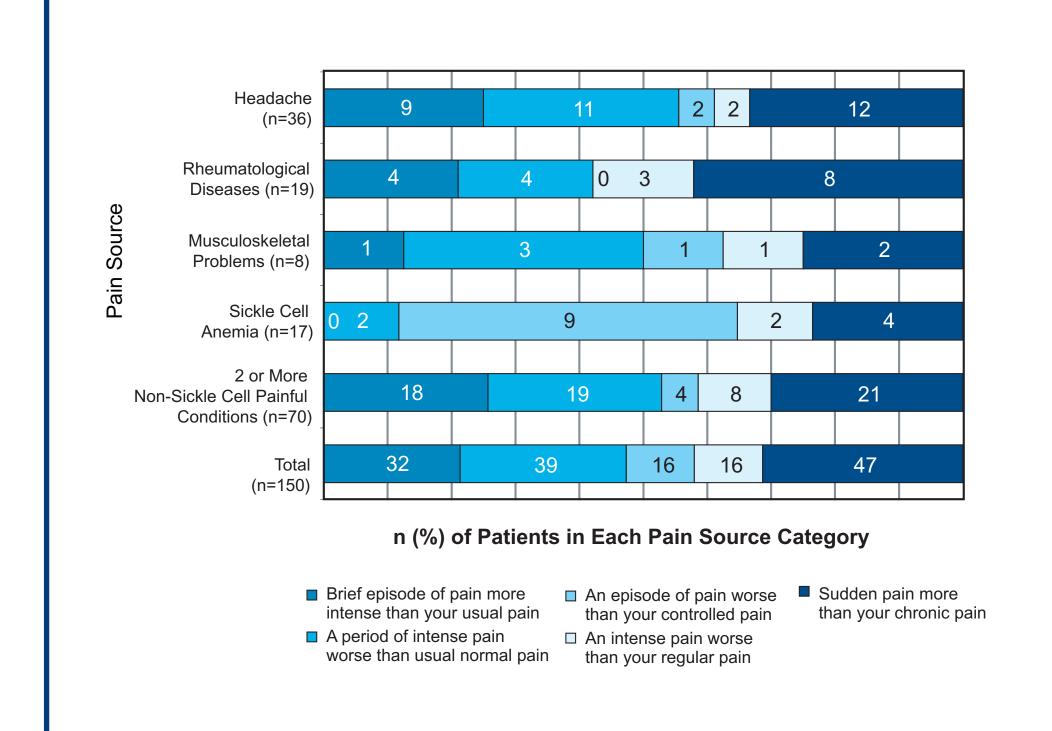
## **Acknowledgements**

- The authors wish to acknowledge Karin Coyne, PhD and United BioSource Corporation for development work on the Pain Flare Definitions Questionnaire
- We also appreciate the assistance of Angela Yin-Chieh Yu, PharmD candidate, in developing the poster

# Term Preferred to Describe a Pain Flare, by



## Definition of a "Pain Flare" By Pain Source (n=150)



## Limitations

- Patients appear to have severe disease and therefore are not representative of all patients with these conditions
- Analyses are limited by small Pain Source groups
- Study fails to capture patients with neuropathic pain, another important source of chronic non-cancer pain
- Additional analyses of participants with 2 or more sources of pain would be worthwhile to examine whether their perceptions are consistent with the single-source pain groups

# Conclusions

- Participants did not prefer to use the term "Breakthrough Pain" when referring to a pain flare
  - They preferred the terms "Acute Pain Episode" and "Pain Crisis" or simply "Pain Flare"
- Chronic headache patients appeared to prefer the term "Acute Pain Episode"
- The concepts of "Sudden", "Period", and "Brief" appear to be important when defining a pain flare
- Results will be helpful to outcomes researchers who study pain and to clinicians who treat patients with these conditions