

ACTIQ®

Speaker Training Meeting

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La Jolla, California

Morrison Exhibit

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Pharmacoeconomics/ Managed Care

Commonly Asked Questions

Questions to be Considered

1. All the new treatments that we hear about for pain management are expensive. How can we help justify the cost?
2. It appears that reimbursement is often less of an issue in patients with cancer. What arguments can be made to help with reimbursement for pain management in patients without cancer?
3. I'm having trouble getting ACTIQ reimbursed, even for breakthrough cancer pain. What arguments can I use with insurance companies?

Questions to be Considered (cont)

4. What about the use of ACTIQ for noncancer pain? I'm getting a lot of push back from managed care organizations. Is there evidence to support the use of products such as ACTIQ in the treatment of BTP in patients without cancer?
5. Patients always want instant gratification. Is the difference between 45-minute onset with most short-acting agents and 15-minute onset with ACTIQ really that important?
6. Is there any evidence that better pain management can help to control healthcare costs?

Pharmacoeconomics and Managed Care

Question 1

All the new treatments that we hear about for pain management are expensive. How can we help justify the cost?

Pain: Human and Economic Consequences

- Greater than 25% of adults in the US experience pain >3 months duration each year
- Total annual cost of pain disorders in US estimated to be in excess of \$100 billion
- National Institutes of Health lists pain as the most common reason for medical appointments (40 million/year)

Pain: Human and Economic Consequences

- In the US, consumers spend \$1 of every \$7 they earn to ease some sort of physical suffering, of which pain is by far the most common
- Pain is a common human malady that spares no group and often impairs function

The Cost of Pain

- Lower back Pain (National Institutes of Health, www.nih.gov)
 - 15% of adults at some point in their life
 - 93 million lost workdays
 - \$15 billion economic impact¹
- Arthritis (Arthritis Foundation, www.arthritis.org)
 - 20 million Americans
 - \$125 billion in cost to nation

The Cost of Pain (cont)

- Headache
 - 40 million Americans affected
 - 157 million missed workdays due to migraine alone (National Headache Foundation www.headaches.org)
 - \$4 billion per year spent on drugs alone
- Face or jaw pain (National Institute of Dental and Craniodental Research, www.nidcr.nih.gov):
 - 5.2 million women affected
 - 2.2 million men affected
 - \$870 million nonsurgical treatment of face pain
 - \$1 billion spent on treatment of jaw pain

Pharmacoeconomics and Managed Care

Question 2

It appears that reimbursement is often less of an issue in patients with cancer. What arguments can be made to help with reimbursement for pain management in patients without cancer?

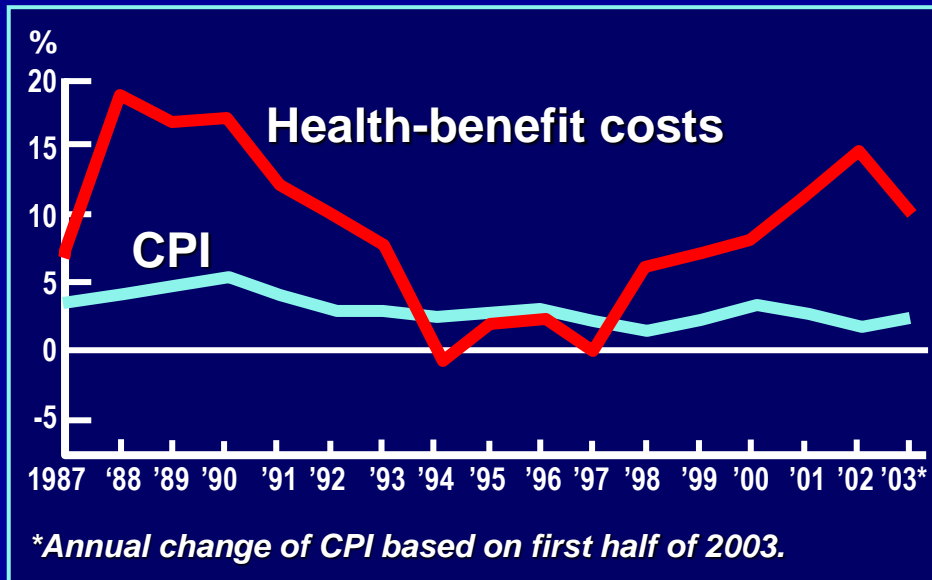
Chronic Pain Prevalence and Treatment

Stratified, random sample of 2,012 adult Canadians¹

- 29% reported chronic, moderate to severe noncancer pain lasting at least 6 months
- ~50% unable to attend social and family events
- 9.3 mean number work days lost due to pain
- Opioid analgesics probably underutilized (<10% on major opioid therapy)

Healthcare Costs are Critical for Employers

Average cost per employee vs the consumer price index (annual change)



The Christian Science Monitor

- Employee healthcare costs increased by 10.1% in 2003 (inflation ~2%)
- Cost per employee increased from \$5,645 in 2002 to \$6,215 in 2003
- Information on what drugs work (and those that do not!) suggested as part of strategy to contain costs

Cost of Pain To Employers

- American Productivity Audit¹
- 28,902 adults surveyed by phone
- Absence and reduced performance due to common pain conditions:
 - Headache
 - Back pain
 - Arthritis
 - Other musculoskeletal pain

Productivity Audit: Results

- 13% with decreased productivity due to pain in 2-week period
- 76.6% of productivity loss was on the job, not due to absence
- Pain conditions causing decreased productivity
 - Headache (5.4%)
 - Back pain (3.2%)
 - Arthritis pain (2.0%)
 - Other musculoskeletal pain (2.0%)

Productivity Audit: Results (cont)

- Mean time of lost productivity = 4.6 h/wk
- Total annual cost of pain related lost productivity and absences

~ \$61.2 Billion

Productivity Audit: Conclusions

- Pain is inordinately common and disabling
- Most of the pain-related lost productivity
 - Occurs while employees are at work
 - Reduced performance and not absence
- “Helping employers understand the cost of health-related lost productive time may encourage them to make more effective use of the healthcare dollars they invest in their workforce.”

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Question 3

I'm having trouble getting ACTIQ reimbursed, even for breakthrough cancer pain. What arguments can I use with insurance companies?

Healthcare System Financial Burden of Pain: Cancer as a Model

Cancer patients with uncontrolled pain are more likely to:

- Have unscheduled hospitalizations and:
 - More frequent Emergency Department (ED) visits
 - Unscheduled office visits
 - increased use of staff time
- Need technological interventions
 - Radiographic examinations
- Have increased cost of analgesic medications
 - Particularly IV meds in ED/hospitals

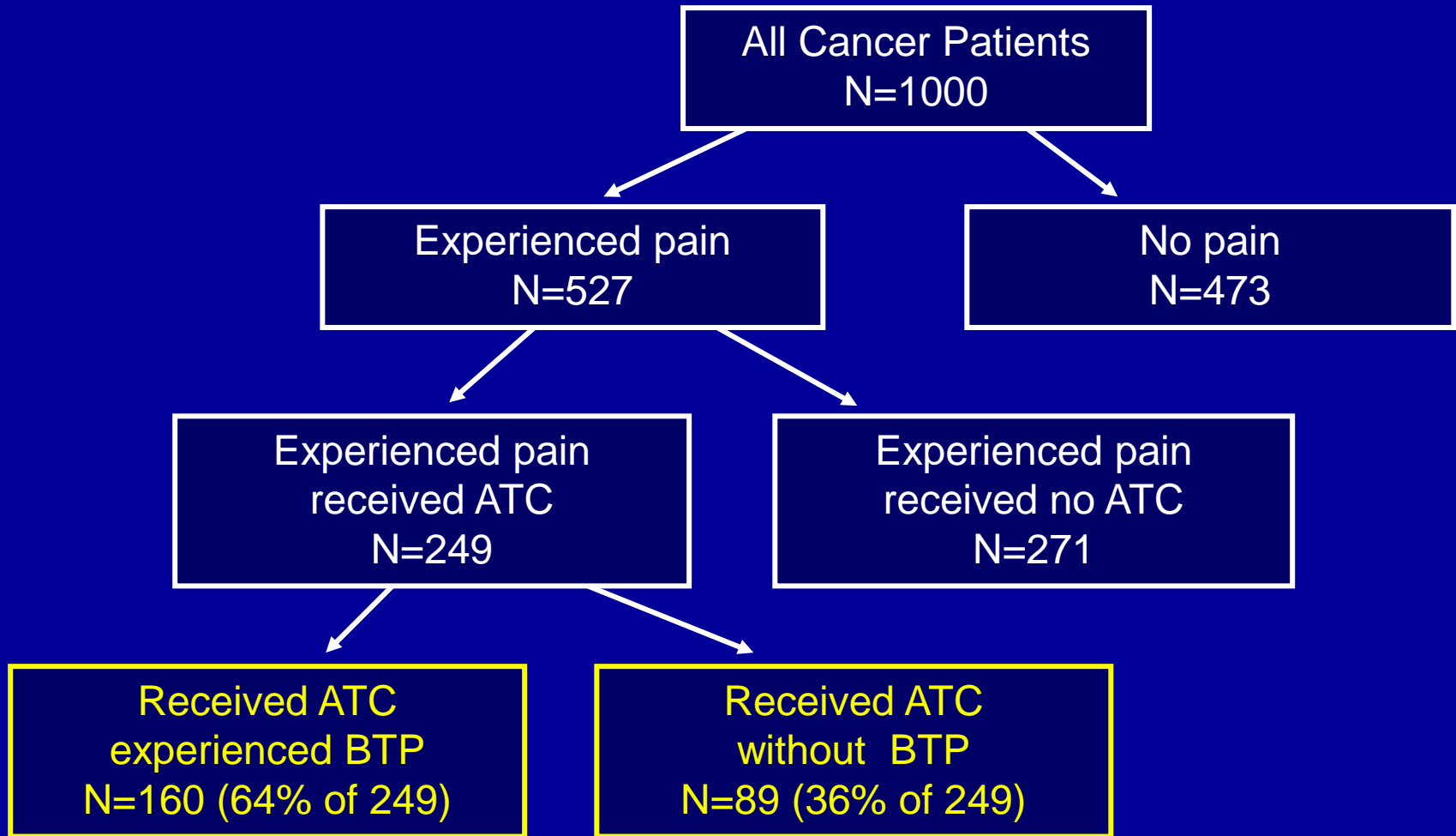
Uncontrolled Cancer Pain Cost of Hospitalization

- Grant et al. (City of Hope)¹
 - 26% of unscheduled admissions
 - Average length of stay 12 days (3 days > pneumonia)
 - Total estimated cost \$5 million
- Larsen et al. (M.D. Anderson)²
 - 14% of all admissions
 - Average length of stay 10.5 days
 - Total estimated cost \$4.7 million

1. Grant et al. *Nurs Clin North Am.* 1995;30:673.

2. Larsen et al. *Am J Hosp Palliat Care.* 1998;223-226.

Telephone Survey in 1000 Cancer Patients



Healthcare Services Utilization

Types	BTP Patients N=160	Non-BTP Patients N=89	<i>P</i> Value
Hospitalized	59 (37%)	20 (23%)	<.02
Emergency Dept.	53 (33%)	20 (23%)	<0.08
Physician office	90 (56%)	33 (37%)	<0.01

Healthcare Services Utilization Events

Event	BTP Patients	Non-BTP Patients
Hospitalizations/year	1.0	0.4
Average hospital stay (days)	7.1	4.1
ED visits/year	1.3	0.5
Office visits/year	4.2	0.6

Healthcare Services Utilization Costs

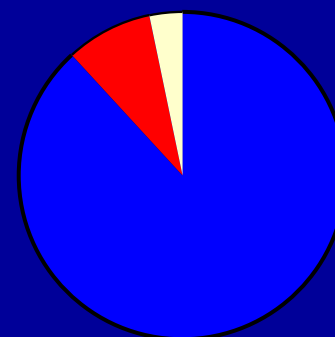
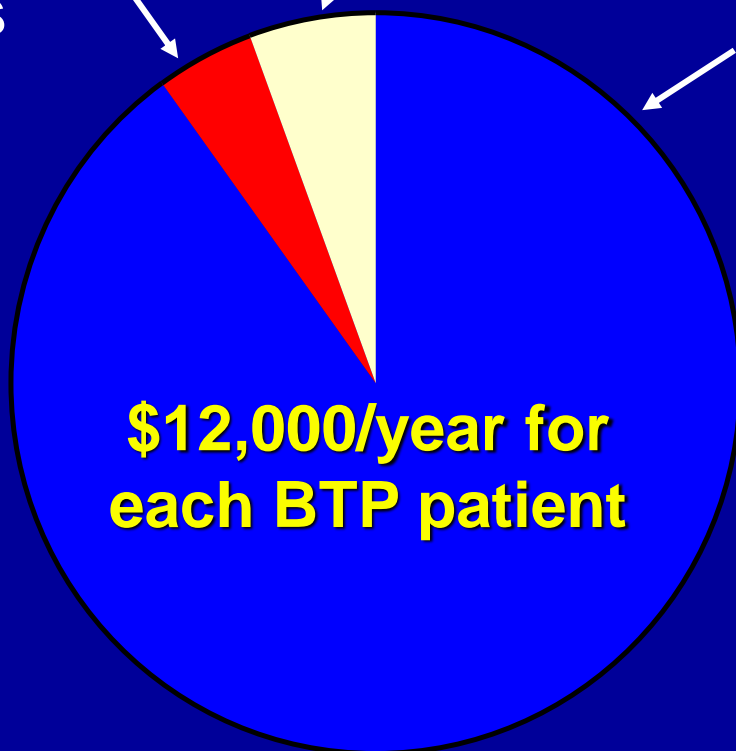
Event	BTP Patients	Non-BTP Patients
Hospitalizations	\$1,700,000	\$192,000
Emergency department	\$84,000	\$19,000
Office visits	\$103,000	\$7,000
Total	\$1,900,000	\$220,000

Yearly Cost Per Patient 5 x Higher in BTP

Emergency
Department
Visits

Office Visits

Hospitalizations



Avoidance of Emergency Center Visits: MD Anderson Oncology Clinic

- Outpatient chart review study
- 39 patients with severe exacerbation of pain (≥ 7)
- Treated with ACTIQ over 3-month period
- Reduction in BTP scores from mean of 9.0 (SD 1.2) to 3.0 (SD 1.4) ($P < .001$)
- ACTIQ obviated need for Emergency Center (EC) visit for most patients
 - 7 were sent to EC
 - 3 were admitted for uncontrolled pain

Importance of Treating Breakthrough Pain

- Most patients being treated for cancer pain with a scheduled opioid are not given a BTP medication
 - Probably true for other conditions associated with BTP
- Improvement in practice of pain management leads to substantial reduction in costs associated with utilization of healthcare system¹
- Impact on human suffering

New Supplemental BTP Slide Set is Being Developed

- Portenoy et al. The Prevalence and Characteristics of Breakthrough Pain in Patients with Chronic Non-Cancer Pain. [Abstract] APS, Boston. 2005.
- Taylor et al. Impact of Breakthrough Pain on Quality of Life in Patients with Chronic, Noncancer Pain: Patient Perceptions and Effect of Treatment with Oral Transmucosal Fentanyl Citrate (OTFC[®], ACTIQ[®]). *Pain Medicine*. in press. 2005.
- Webster et al. Oral Transmucosal Fentanyl Citrate (OTFC[®]) Use in Noncancer Pain: A Retrospective Study. [Abstract] APS. 2004.

New Supplemental BTP Slide Set (cont)

- Tennant et al. The use of oral transmucosal fentanyl citrate for breakthrough pain in severe, non-malignant chronic pain. *AJPM*. 2002;12:130-135.
- Singer, RS. Oral transmucosal fentanyl citrate in the outpatient treatment of severe pain from migraine headache. *The Pain Clinic*. 2004;6:10-13.
- Landy S. Oral transmucosal fentanyl citrate for the treatment of migraine headache pain in outpatients: A case series. *Headache*. 2004;44:1-5.

Reimbursement Services Provided by Cephalon

- ACTIQ Reimbursement Hotline
 - Information on third-party coverage
 - Payer and patient-specific information
 - Prior authorization procedures
 - Patient coverage status
 - Reimbursement amounts and limitations
 - Billing and coding assistance
 - Assistance with denied claims
 - Letters of Medical Necessity Templates
 - Assistance with filing appeals for denied claims

Reimbursement Services (cont)

- Letters of Medical Necessity
 - Topics available
 - Breakthrough cancer pain (BTCP)
 - Breakthrough Pain (BTP)
 - Noncancer chronic pain
- ACTIQ Patient Assistance Programs
 - Financially disadvantaged without health insurance or government assistance
 - Fulfill specific requirements
 - Including that it must be for BTCP

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Question 4

What about the use of ACTIQ for noncancer pain? I'm getting a lot of push back from managed care organizations. Is there evidence to support the use of products such as ACTIQ in the treatment of BTP in patients without cancer?

Prevalence of Breakthrough Pain

- Overall: 39%-89%
- Cancer patients:
 - Outpatients: 39%-70%
 - Hospice: 86%-89%
- Noncancer patients
 - Outpatients: 74%
 - Hospice: 63%

Caraceni A, Portenoy RK. *Pain*. 1999;82:263-274.

Petzke F, et al. *J Pain Symptom Manage*. 1999;17:179-183.

Gómez-Batise X, et al. *J Pain Symptom Manage*. 2002;24:45-42.

Hwang SS, et al. *Pain*. 2003;101:55-64.

Fine PG, Busch MA. *J Pain Symptom Manage*. 1998;16:179-183.

Zeppetella G, et al. *Palliat Med*. 2000;20:87-92.

Portenoy, et al. *APS*. 2005.

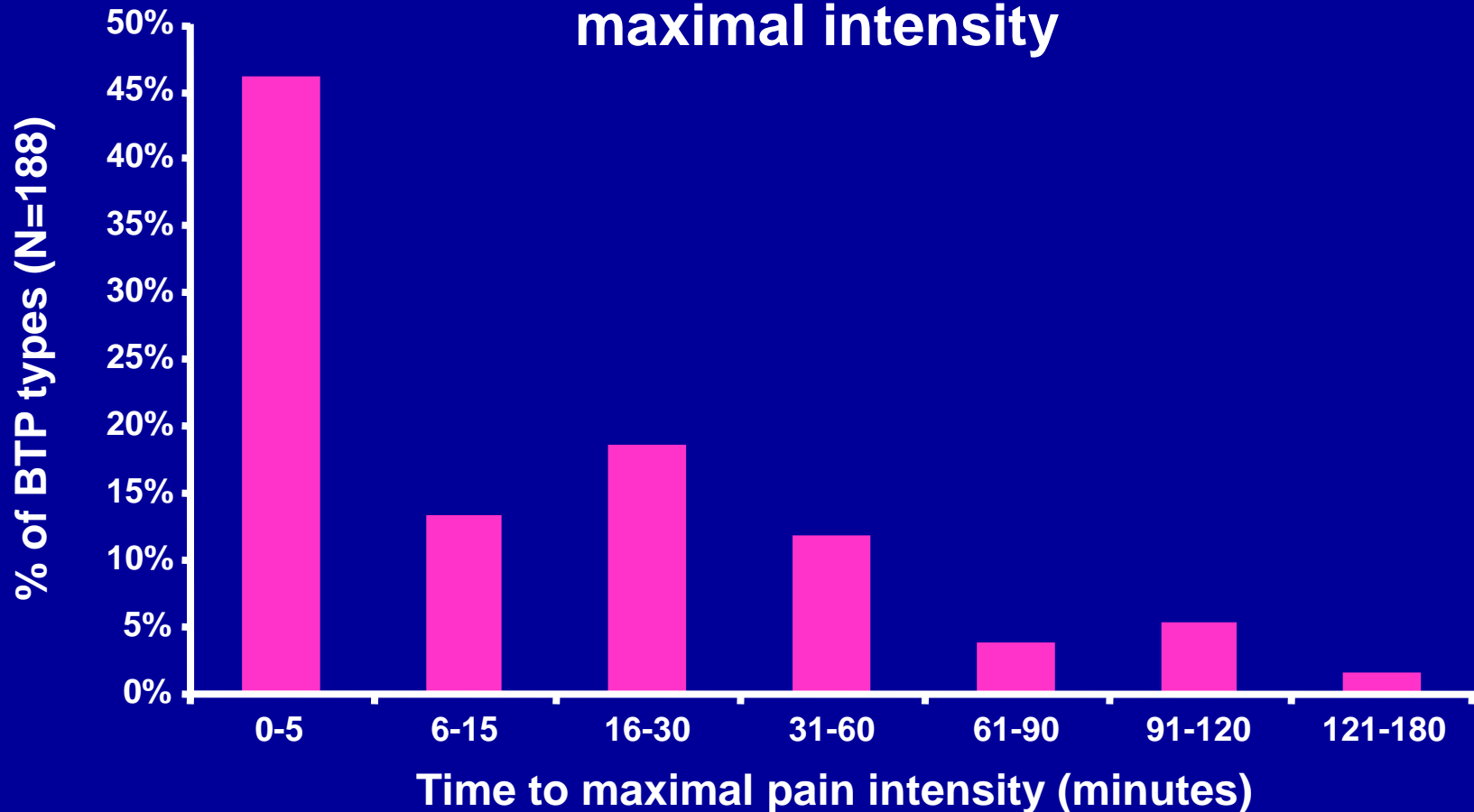
Zeppetella G, et al. *Palliat Med*. 2001;15:243-246.

Prevalence and Characteristics of BTP in Noncancer Chronic Pain

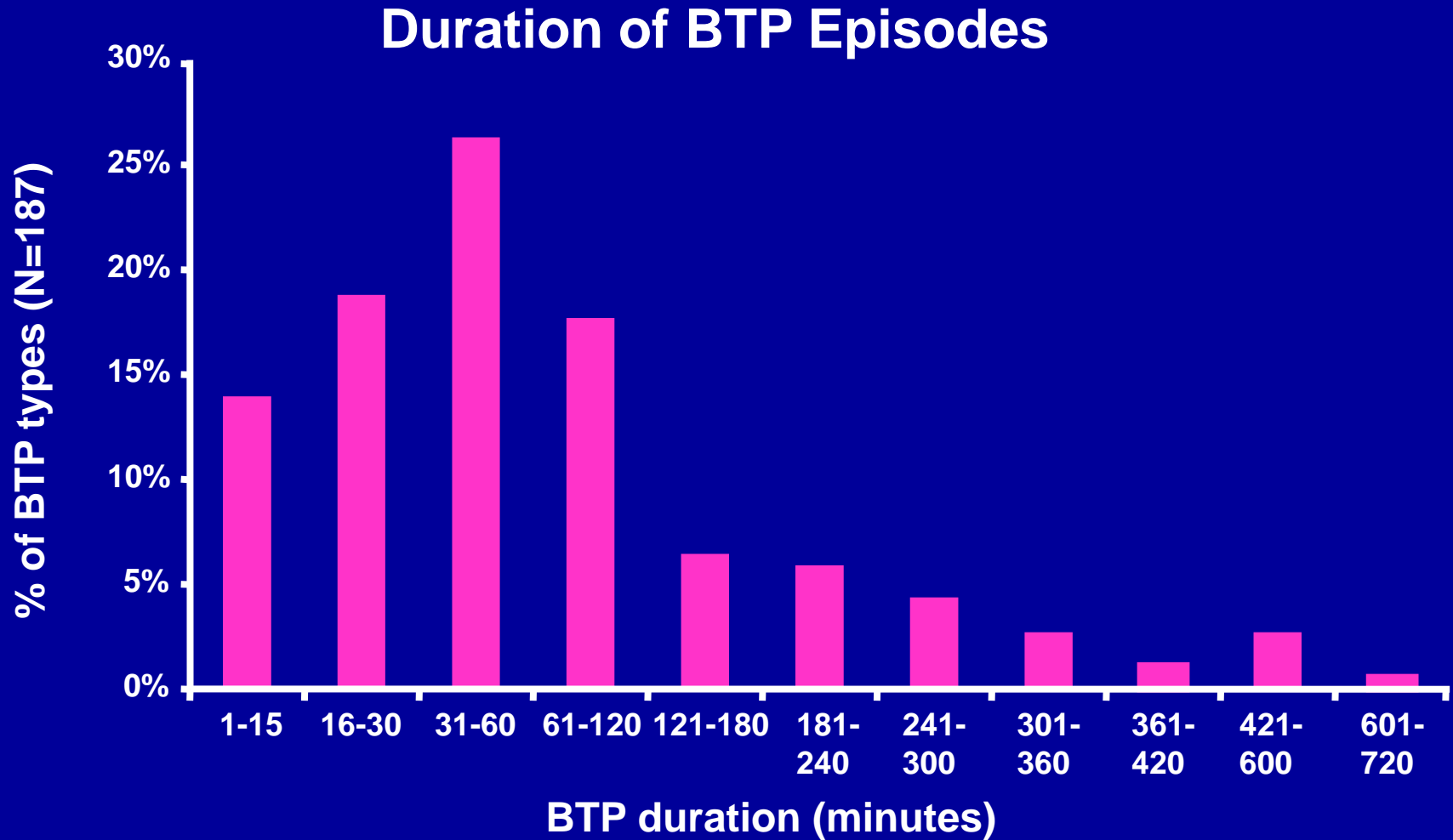
- Survey of noncancer patients with controlled baseline pain on chronic opioid therapy (N=228)
 - Controlled baseline pain defined as baseline pain of moderate or less intensity
 - Breakthrough pain (BTP) defined as temporary flare of severe or excruciating pain
- Prevalence of BTP: 74% (168/228 patients)
- Characteristics of BTP:
 - Rapid onset to peak intensity (5 minutes or less in 46%)
 - Relatively short duration (median 60 minutes)
 - Often unpredictable (never able to be predicted in 46%)
 - 1-4 episodes per day in 73%

BTP Characteristics: Rapid Onset

Time from first perception of BTP to maximal intensity



BTP Characteristics: Short Duration



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Question 5

Patients always want instant gratification. Is the difference between 45-minute onset with most short-acting agents and 15-minute onset with ACTIQ really that important?

Cancer Pain and Quality of Life

Uncontrolled cancer pain can result in:

- Loss of physical and social functioning
- Increased psychological distress
- Depression and suicide
- Impact on families
- Patients and families seeking unscheduled medical care

Breakthrough Cancer Pain

- Transitory flare of moderate-to-severe pain occurring against a background of persistent pain otherwise controlled by chronic opioid therapy
- Predictor of poor medical outcome
- Increased levels of depression and anxiety
- Associated with both relatively worse pain and greater impairment in pain-related quality of life

ACTIQ in Noncancer Chronic Pain: Quality of Life Study

Objective:

- To evaluate the characteristics of BTP and impact of BTP on quality of life (QOL) in patients with chronic noncancer pain
- To assess effect of treatment with ACTIQ to manage BTP on QOL

Study Design:

- Patient survey – chronic noncancer pain

Eligible Patients (N=43)

- Having ≥ 1 episode/day while on long-acting opioid for persistent pain
- Persistent pain > intensity of persistent pain (Scale 0-10)*
- On stable dose of ACTIQ for BTP for at least 2 weeks

* Pain Intensity Scale: 0 = No pain; 10 = worst pain imaginable.

Taylor D, Webster LD, Chun SY, et al. Impact of breakthrough pain on quality of life in patients with chronic, noncancer pain: patient perceptions and effect of treatment with oral transmucosal fentanyl citrate (OTFC[®], ACTIQ[®]). Pain Med. [In press];2005.

ACTIQ in Noncancer Chronic Pain: Quality of Life Study (cont)

- Primary pain diagnosis:
 - Back pain (44%)
 - Musculoskeletal pain (12%)
 - Head pain (9%)
 - CRPS (7%)

ACTIQ in Noncancer Chronic Pain: Quality of Life Study (cont)

Results:

- Median ACTIQ dose: 800mcg
- Mean frequency: 3.7 ACTIQ dosage units per day
- Onset of meaningful pain relief (mean values)
 - ACTIQ: 15 minutes
 - Previous short-acting opioid: 40 minutes
- Patients expressed significantly greater satisfaction with ACTIQ therapy than with previous BTP medications
- ACTIQ provided substantial improvements in QOL in most domains:
 - By >60% of patients in “enjoyment of life” and “mood”
 - By >50% of patients in “general activity”, “ability to interact with others”, “ability to work”, and “ability to sleep at night”

Quality of Life Study: Rating Scale

- Same rating used for adverse effects and beneficial effects, for example
 - BTP effects my general activity level
 - OTFC improve my general activity level
- 0=not at all
- 1=a little bit
- 2=some-what
- 3=quite a bit
- 4=very much

Quality of Life Study: QOL Domains Affected

- BTP rated with greatest adverse effects (rated as 3 or 4) on the following QOL domains:
 - General activity level (93% of patients)
 - Ability to work (93%)
 - Enjoyment of life (86%)
 - Finances (81%)

Quality of Life Study: The effects of ACTIQ on QOL

- ACTIQ rated with greatest positive effects (rated either 3 or 4) on the following QOL domains:
 - Enjoyment of life (65%)
 - Mood (61%)
 - General activity level (58%)

Pharmacoeconomics and Managed Care

Question 6

Is there any evidence that better pain management can help to control healthcare costs?

Effect of Pain Management on Healthcare Expenditures

Pain related medical costs before and after a pain management “quality improvement” project in an oncology clinic

	Before	After	
Costs/month	\$5,070	\$1,442	$P < 0.02$
Hospitalizations	14%	4%	
ED visits	22%	3%	
Office visits	63%	48%	

Effect of Pain Management on Healthcare Expenditures

Evidence-based clinical decision and economic analysis model comparing three cancer pain management strategies

	Effective Relief	Cost/mo
Guideline based care	80%	\$579
Oncology based care	55%	\$466
Usual care	30%	\$315

Note: Model did not account for hospitalizations or ED visits

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