CONFIDENTIAL

Duragesic Disease Modeling Workshop 2 Takeaways

Johnson & Johnson

Synthesis document

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Contents

- Current hypotheses, questions, and analyses

- Updated aspects of patient flow analysis
  - Patient population definition
  - Patient segmentation

- Updated physician flow analysis
  - Physician flow map
  - Physician segmentation

- Next steps

- Appendix

Workshop # 2 Surfaced Three Fundamental Opportunities
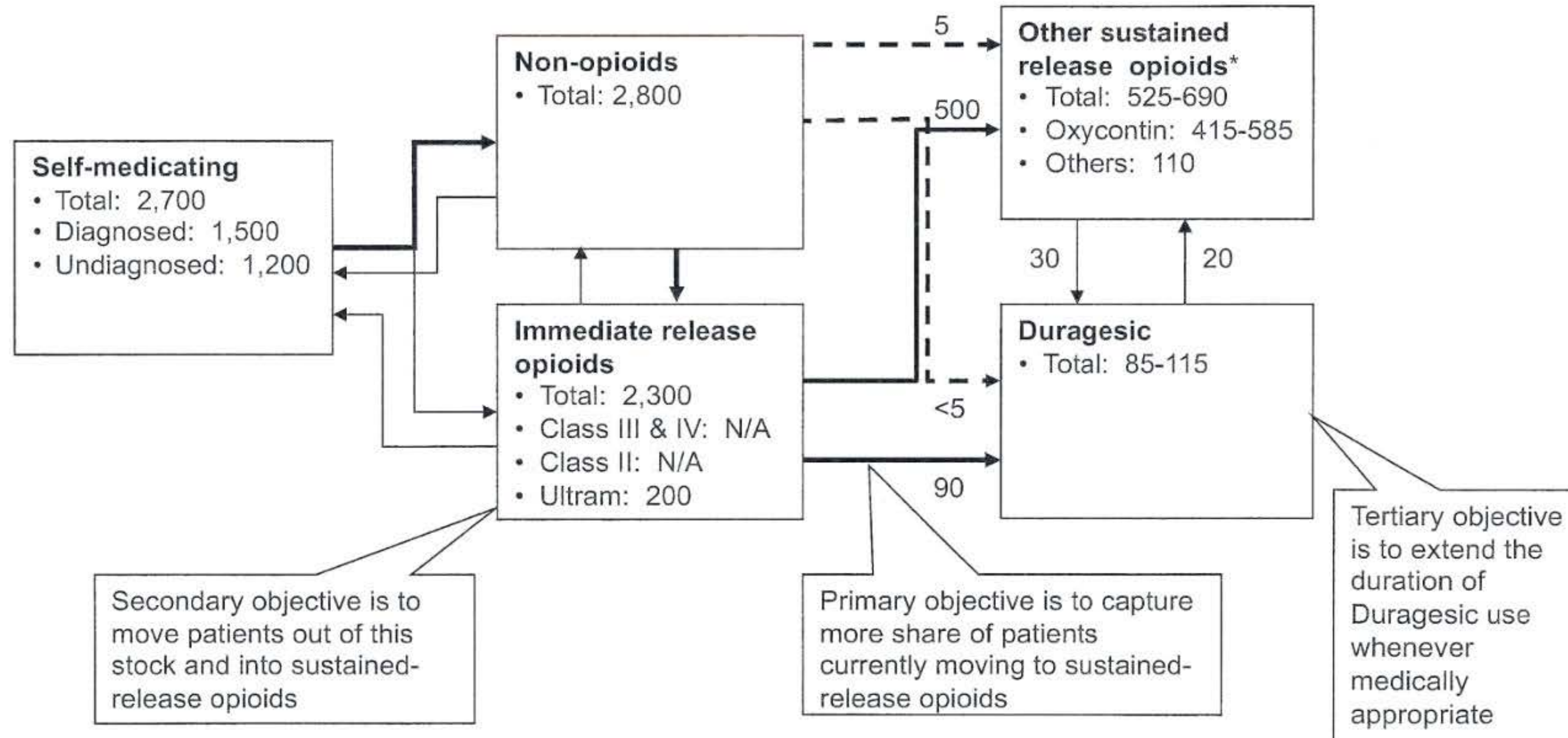
1. Increase **share** of patients shifting from immediate-release to sustained-release opioids captured by duragesic

2. Increase **total flow** of chronic back patients from immediate-release to sustained-release opioids

3. Increase **retention** of chronic back pain patients on duragesic whenever medically appropriate

Initial Estimates Of Chronic Back Pain Patient Stocks And Flows

Thousands of patients per year
100% = 8.6 million patients*

——→ Primary flows
- - -→ Potentially negligible flows

Non-opioids
- Total: 2,800

Other sustained release opioids*
- Total: 525-690
- Oxycontin: 415-585
- Others: 110

Self-medicating
- Total: 2,700
- Diagnosed: 1,500
- Undiagnosed: 1,200

Immediate release opioids
- Total: 2,300
- Class III & IV: N/A
- Class II: N/A
- Ultram: 200

Duragesic
- Total: 85-115

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500
30   20
<5
90

Secondary objective is to move patients out of this stock and into sustained-release opioids

Primary objective is to capture more share of patients currently moving to sustained-release opioids

Tertiary objective is to extend the duration of Duragesic use whenever medically appropriate

* Initial estimates include only patients with 3 months or greater of moderate to severe back pain

Note: All immediate release opioids (Class II, III, & IV) grouped together due to data limitations during preliminary analysis

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Opportunity #1: Increase Share Of Patients Shifting From Immediate-release To Sustained-release Opioids Captured By Duragesic

PRELIMINARY

Strategy	Key questions	Analysis/data	Key contacts
• Re-direct sales force toward specific physician segments and other key influencers	• Are Duragesic prescriptions currently driven by physician preference or specific patient attributes?	• Pareto analysis of chronic back pain prescribing behavior (IMS Exponent data); Quantitative data on physician behavior (Segmentation study)	• Beth Woodhead; Mike Lee
	• How many chronic back pain patients are currently receiving long-term, high-dose regimens of short-acting opioids? Are we currently targeting the physicians who prescribe these regimens?	• Analysis of chronic back pain prescriptions/patient stocks (Mscan); Understand Purdue call patterns and implications for Duragesic (Janssen experts, targeted interviews)	• Beth Woodhead; Guy Nuyts
	• What is pattern of opioid use from chronic back pain in elderly/long term care? Are we properly targeting and influencing prescription behavior in this setting?	• Breakdown patient stocks by age (Mscan, Longitudinal study); Understand prescription decision process in long-term care (Janssen experts, targeted interviews)	• Guy Nuyts; Mike Lee
	• Are we properly targeting and influencing prescription behavior in the pain clinics? Would creative contracting help in this setting?	• Breakdown physician stocks/deciles by setting of care; Understand prescription decision process in pain clinics (Janssen experts, targeted interviews)	• Beth Woodhead; Duragesic brand team
	• Are certain physician specialties more or less likely to prescribe long-acting opioids? Can we influence flows to take advantage of this difference?	• Breakdown physician stocks/deciles by specialty; Opiod prescription behavior by specialty (NDTI)	• Beth Woodhead; Jenna Kelly; Duragesic brand team

Opportunity #1: Increase Share Of Patients Shifting From Immediate-release

LIMINARY

Strategy

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- Re-direct sales force toward specific physician segments and other key influencers

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	• How many chronic back pain patients	• Analysis of chronic back pain	• Beth Woodhead;

• Are Duragesic prescriptions currently driven by physician preference or specific patient attributes?

Opportunity #1: Increase Share Of Patients Shifting From Immediate-release To Sustained-release Opioids Captured By Duragesic (Continued)

display cases)

- Target high abuse-risk patients (e.g., males under 40)

- Use clinical data to influence physician/payor choice of long-acting opioid

- What are the patient segment breakdowns for Duragesic and Oxycontin for chronic back pain (i.e., age, gender)?

- What data will influence payors/physicians' choice in near-term? Is there a potential role for return to functionality data (i.e., Thomas Jefferson University)?

Opportunity #2 ... **nts From**
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PRELIMINARY

Strategy	Key...		Key contacts
• Move physicians who are "stuck" in Class III/IV opioids to Class II opiods		MS	• Beth Woodhead; Mike Lee
• Adapt marketing tactics to changing regulations (e.g., triplicate scripts)		s of ...ews	• Beth Woodhead
		ssen	• Duragesic brand team
			• Jeff Mathis; Duragesic brand team

Strategy

- Move physicians who are "stuck" in Class III/IV opioids to Class II opiods

- Adapt marketing tactics to changing regulations (e.g., triplicate scripts)

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Opportunity #3: Increase Retention Of Chronic Back Pain Patients On Duragesic Whenever Medically Appropriate

<u>PRELIMINARY</u>

Stategy	Key questions	Analysis/data	Key contacts
• Intervene to stem specific patient out-flows	• What does the current Duragesic duration profile look like? Do patients that leave Duragesic early flow to a different destination than those which stay on Duragesic for a long time?	• Duragesic duration and out-flow analysis of longitudinal or cross-sectional database (Mscan, Duragesic longitudinal study)	
• Target patient/physician segments with high Duragesic duration	• Does average duration vary systematically according to patient segments (e.g., age, gender)?	• Segment by segment duration analysis of longitudinal or cross-sectional databases (Mscan, Duragesic longitudinal study)	• Guy Nuyts; Mike Lee
	• Does average duration vary systematically according to physician segments (e.g., specialty, setting of care)?	• Segment by segment duration analysis of longitudinal or cross-sectional databases (Mscan, Duragesic longitudinal study)	
• Decrease impact of adverse events on duration of use	• Which adverse events are most likely to cause patients to terminate use of Duragesic?	• Adverse event rate analysis of clinical studies; Targeted physician interviews; Janssen experts	• Juergen Haeussler; Duragesic brand team
	• Are particular patient segments more prone to adverse events?	• Adverse event rate analysis of clinical studies; Janssen experts	

Opportunity #3: Increase Retention Of Chronic Back Pain Patients On
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- Target patient/physician segments with high Duragesic duration

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Opportunity #3: Increase Retention Of Chronic Back Pain Patients On Duragesic Whenever Medically Appropriate

PRELIMINARY

- Decrease impact of adverse events on duration of use

Duragesic Patient Segments

Segmentation	Segments	Rationale
Age	• Under 40 • 40-64 • 65 and over	• Duragesic may have natural advantage in older patients (e.g., less active, difficulty swallowing) • Duragesic currently trails Oxycontin in under-40 market even its though abuse advantage is strongest here
Gender	• Male • Female	• Duragesic has traditional advantage over Oxycontin with females • Duragesic may have a natural advantage in males due to abuse concerns

Chronic Back Pain Physician Flows

100% = All physicians who treat back pain
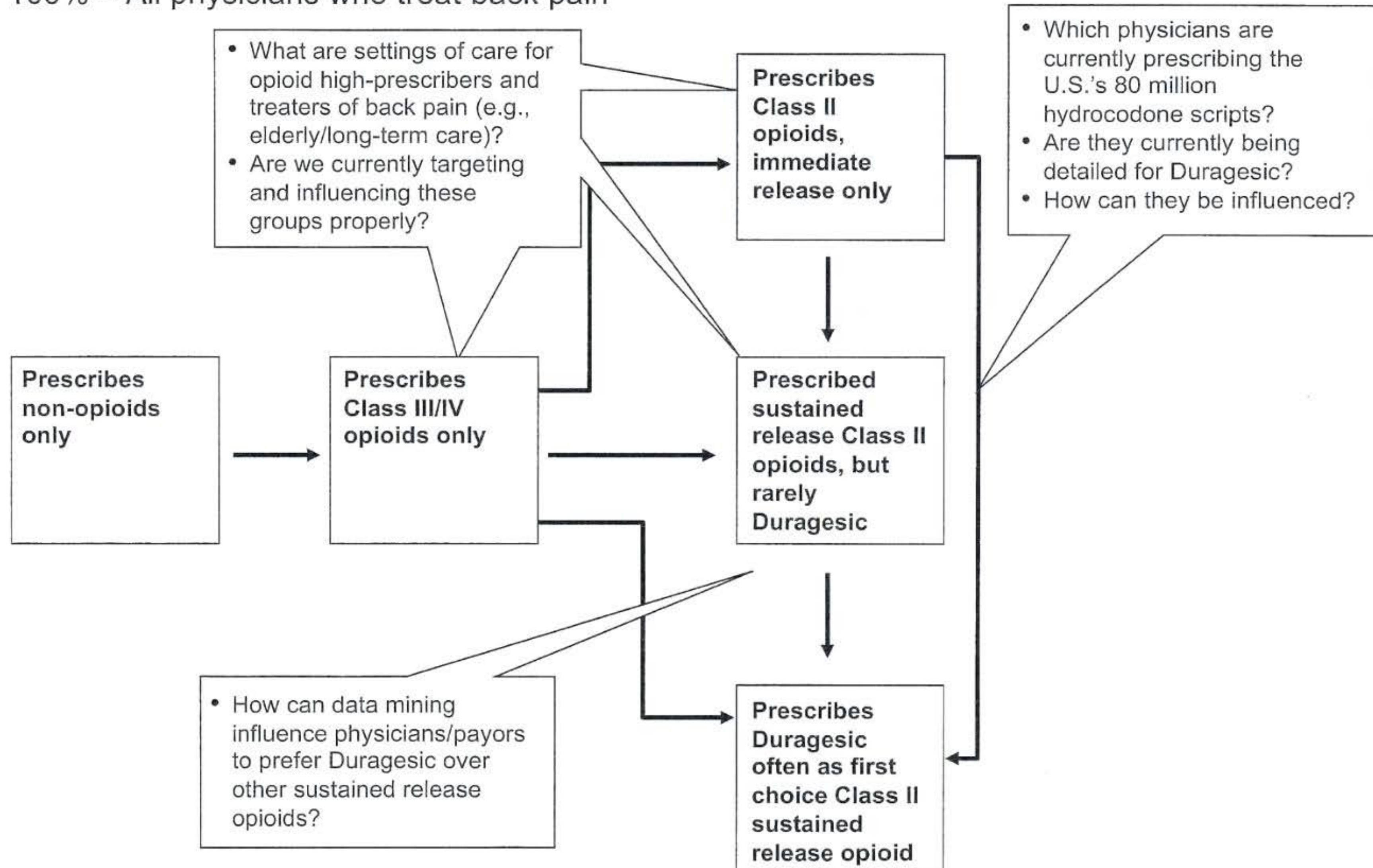
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- What are settings of care for opioid high-prescribers and treaters of back pain (e.g., elderly/long-term care)?
- Are we currently targeting and influencing these groups properly?

Chronic Back Pain Physician Segments

Segmentation	Segments	Rationale
Setting of care	• Pain clinic • Elderly/long-term care • Other	• Share of voice is setting-dependent • Key influencers of prescription behavior vary among settings
Physician specialty	• GP • Orthopedist • Pain specialists • Neurologists	• Comfort with opioids likely to vary systematically with specialty • Encounter patients at different points in treatment path

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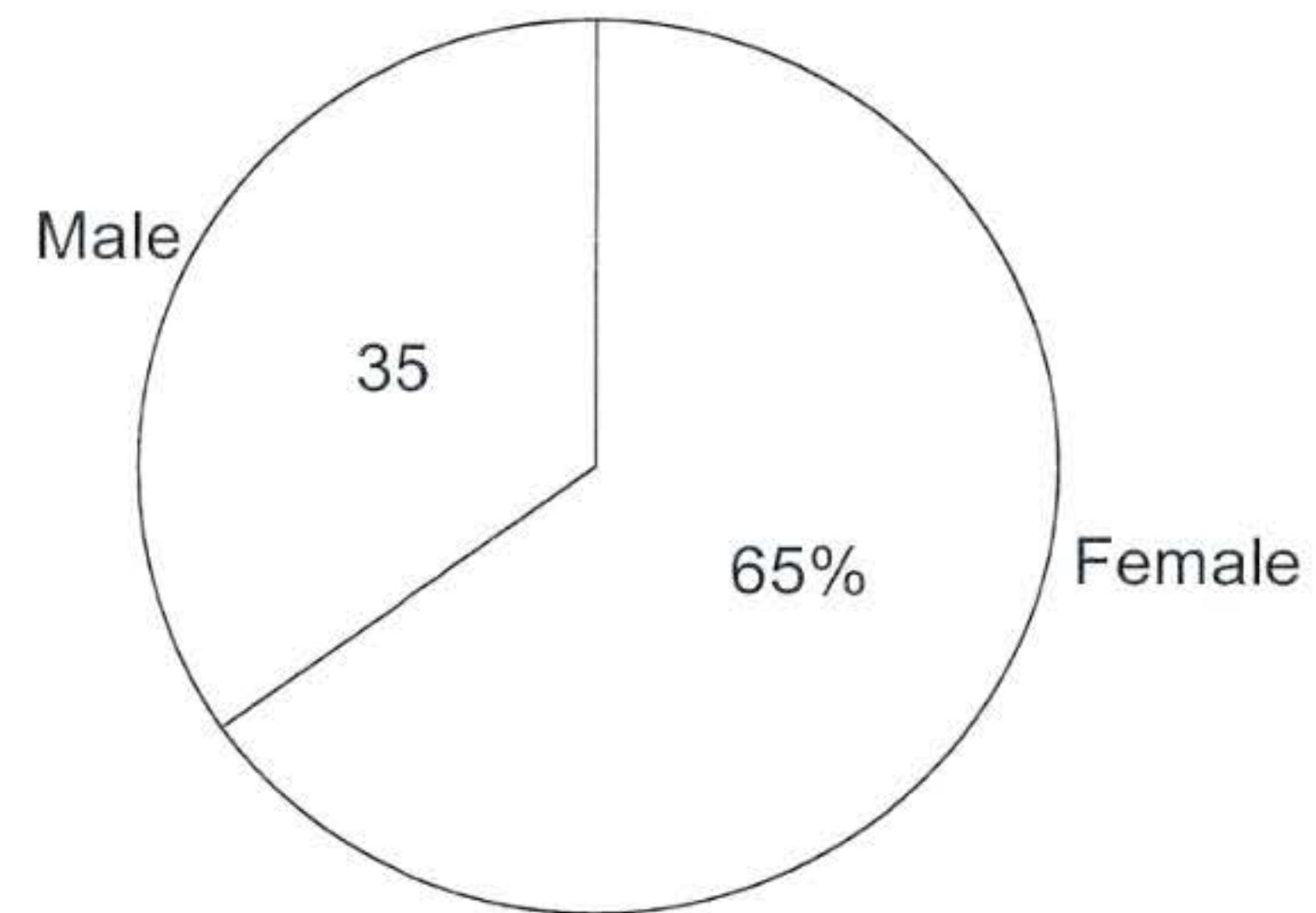
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Gender Of Oxycontin And Duragesic Patients

Oxycontin
Percent prescriptions
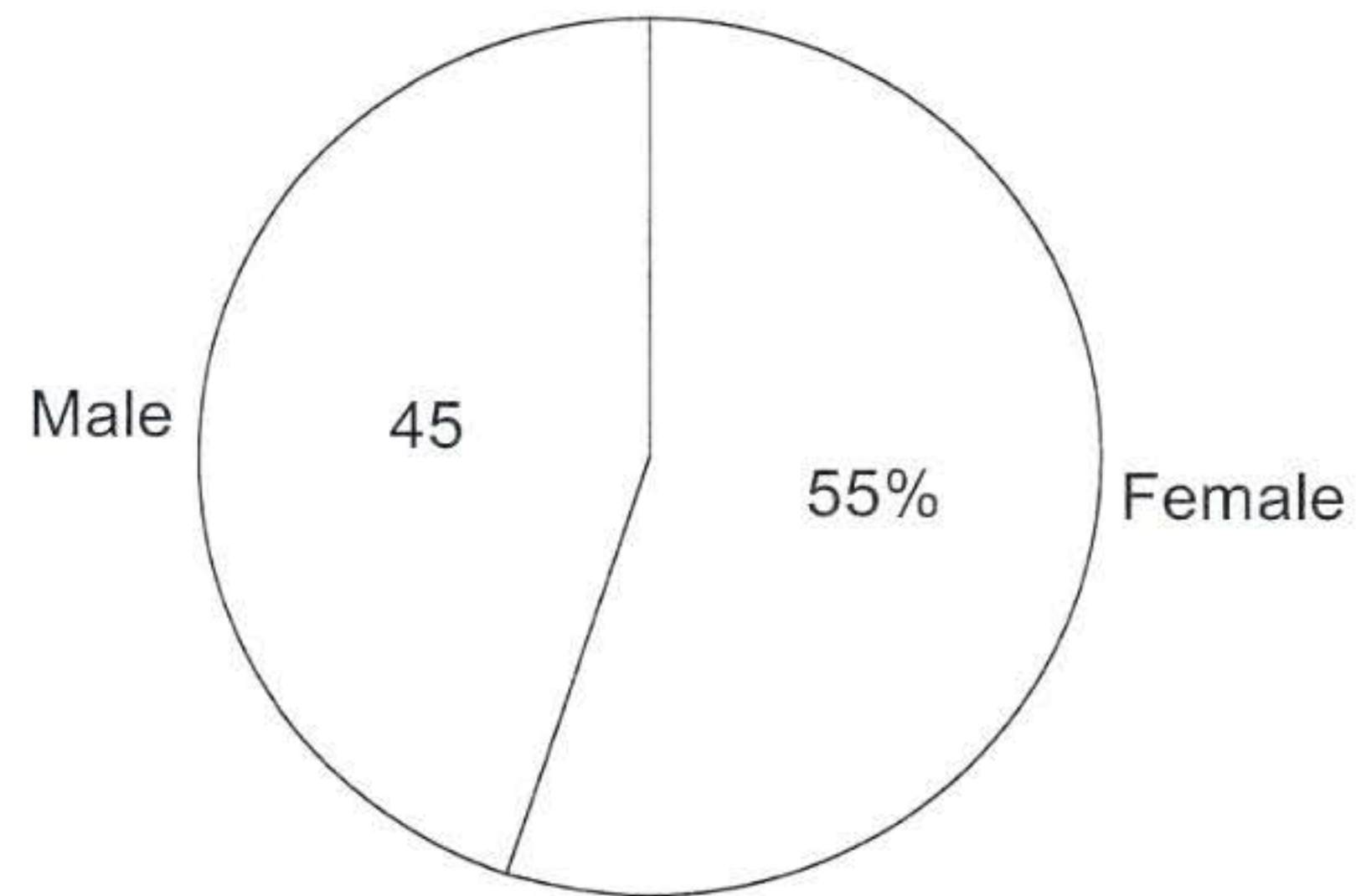
Duragesic
Percent prescriptions

Male 45 55% Female

Male 35 65% Female

Patient Stocks Calculation

● High
○ Low

	Duragesic	Oxycontin	MS Contin	Morphine Sulfate (generic)	Confidence	Source
Total prescriptions 2001	3,430,000	7,183,000	749,000	1,099,000	●	• IMS – National Prescription Audit; Janssen Marketing Research
Percent of Rx prescribed for back pain*	20%	34%	34%	34%	◑	• IMS – National Drug and Therapeutic Index; Janssen Marketing Research
Rx written for back pain	686,000	2,427,712	253,147	371,440	◑	• (Total Rx) x (Percent due to back pain)
Avg number of Rx per patient	5.8	5.8	5.8	5.8	◕	• Assumption: 140 days per patient/24 days per prescription
Number of back pain patients	117,600	416,179	43,397	63,675	◕	• (Rx written for back pain)/ (Average number of Rx per patient)

* 34% based on 20% for Duragesic and 30% for overall market

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Source: IMS; Janssen marketing research; team analysis

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