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Access to Addiction Pharmacotherapy in Private Health Plans

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Abstract

Background—An increasing number of medications are available to treat addictions. To understand access to addiction medications, it is essential to consider the role of private health plans. To contain medication expenditures, most U.S. health plans use cost-sharing and administrative controls, which may impact physicians' prescribing and patients' use of addiction medications. This study identified health plan approaches to manage access to and utilization of addiction medications (oral and injectable naltrexone, acamprosate, and buprenorphine).

Methods—Data are from a nationally representative survey of private health plans in 2010 (n=385 plans, 935 products; response rate 89%), compared to the same survey in 2003. The study assessed formulary inclusion, prior authorization, step therapy, overall restrictiveness, and if and how health plans encourage pharmacotherapy.

Results—Formulary exclusions were rare in 2010, with acamprosate excluded most often, by only 9% of products. Injectable naltrexone was covered by 96% of products. Prior authorization was common for injectable naltrexone (85%) and rare for acamprosate (3%). Step therapy policies were used only for injectable naltrexone (41%) and acamprosate (20%). Several medications were often on the most expensive tier. Changes since 2003 include fewer exclusions, yet increased use of other management approaches. Most health plans encourage use of addiction pharmacotherapy, and use a variety of methods to do so.

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Conclusions—Management of addiction medications has increased over time but it is not ubiquitous. However, health plans now also include all medications on formularies and encourage providers to use them, indicating they value addiction pharmacotherapy as an evidence-based practice.

Keywords

substance use disorders; pharmacotherapy; medication-assisted treatment; insurance; health plans; access

1. Introduction

Pharmacotherapy for addiction has evolved significantly over the past decade (Franck & Jayaram-Lindstrom, 2013; Hall et al., 2014; Riksheim, Gossop, & Clausen, 2014), with more types of medications and methods of administration available. Demonstrated effectiveness and cost-effectiveness have made addiction pharmacotherapy an evidence-based practice (Fullerton et al., 2014; Gastfriend, 2011; Maisel, Blodgett, Wilbourne, Humphreys, & Finney, 2013; Polsky et al., 2010; Rosner et al., 2010; Schackman, Leff, Polsky, Moore, & Fiellin, 2012; Thomas et al., 2014). Newer medications address craving, moving beyond limiting withdrawal symptoms or reducing the “high” from substance use. Access has improved, with less reliance on methadone clinics as the main treatment setting, with buprenorphine and other medications now available within primary care. Acceptability has improved too. Specialty settings that traditionally use an abstinence-based approach are increasingly using medications to treat addictions (Knudsen & Roman, 2014). All of these changes are particularly salient in the face of the burgeoning opioid epidemic and the continuing devastating impact of drug and alcohol addiction across the U.S.

One might expect this series of changes in environment and attitudes to result in addiction being treated as any other condition, with medications widely accepted as a legitimate treatment option. However, in the U.S., prescribing and use of addiction medications is still fairly low in both primary care and specialty addiction treatment settings (Iheanacho, Issa, Marienfeld, & Rosenheck, 2013; Knudsen, Roman, & Oser, 2010; Mark, Kassed, Vandivort-Warren, Levit, & Kranzler, 2009; Oliva, Maisel, Gordon, & Harris, 2011; Roman, Abraham, & Knudsen, 2011). Even in specialty addiction treatment settings, less than half of programs prescribed any addiction medications, varying by medication and type of program (Roman et al., 2011). Prescribing for addiction is much less common than for mental disorders (Harris, Kivlahan, Bowe, & Humphreys, 2010; Knudsen, Abraham, & Roman, 2011; Mark et al., 2009) despite demonstrated efficacy and recommendations that addiction pharmacotherapy be considered for most people with alcohol or opioid use disorders (American Society of Addiction Medicine, 2015; Harris et al., 2010; National Institute on Drug Abuse, 2012; Substance Abuse and Mental Health Services Administration, 2009). In specialty addiction treatment programs that prescribed medications, less than 35% of clinically appropriate patients were prescribed addiction medications, versus psychiatric medications prescribed for 70% of those with psychiatric diagnoses (Knudsen, Abraham, & Roman, 2011). Less than 2.5% of alcohol-dependent patients in the VA received a prescription for oral naltrexone or another medication for alcohol dependence (Harris et al.,

2010; Iheanacho et al., 2013). Despite rapid increases in addiction medication sales in the 2000s (Mark et al., 2009), the number of patients prescribed addiction medications still represents a small proportion of the population that would likely benefit (Harris et al., 2010; Mark et al., 2009; Thomas et al., 2013).

Health insurance plays an important role in access to prescription medications in general and to addiction pharmacotherapy. Health plans' influence on access is primarily at the patient level. The most obvious way to manage access to any medication is by placing it on the formulary or excluding it (Horgan, Reif, Hodgkin, Garnick, & Merrick, 2008). If a medication is not on the formulary, generally patients must pay out of pocket for the prescription, thus reducing access. If the medication is covered, insurers have a direct impact on the cost of medications for a patient, by indicating whether a medication is on a tier that requires higher or lower copayments and by setting those copayment amounts.

Access to medications is frequently managed by insurers in additional ways, such as by requiring physicians to obtain prior authorization or document that a different medication has been tried first (Happe, Clark, Holliday, & Young, 2014; Olson, 2003). Patients may decide whether to request or fill a prescription based on such limits. Providers may anticipate access limits that their patients fall under, and thus may determine an approach based on such concerns.

Health plans can also influence whether a provider is likely to prescribe a medication. Health plans could act to encourage or discourage use of specific medications or types of medications with providers in their networks. Guidelines, training, feedback to providers, performance measures, and use of incentives are all potential tools.

This paper considers how health plans manage addiction medications and whether they encourage addiction pharmacotherapy, as potentially important influences on access. It uses data from a nationally representative study of private health plans to examine availability of addiction pharmacotherapy in 2010, and in comparison to baseline data collected in 2003 (Horgan et al., 2008). With newer medications for addiction in the pipeline and in an era of increased focus on access to care, it is important to understand access to addiction medications within private health plans.

2. Methods

2.1. Data source and population

Data were collected for the 2010 benefit year through the third round of a nationally representative survey of commercial health plans regarding alcohol, drug and mental health services (Horgan et al., 2016). A previous round of the survey was conducted in 2003. The telephone survey was administered to senior health plan executives. Typically, one respondent answered administrative questions and referred interviewers to the medical director or behavioral health medical director for clinical questions and, rarely, to the pharmacy director for pharmacy questions. Plans occasionally referred interviewers to their managed behavioral health organization (MBHO) contractor for additional information.

For some national or regional plans, respondents at corporate headquarters responded for multiple sites. Health plans typically offer multiple products such as a health maintenance organization (HMO) or a preferred provider organization (PPO). Items were asked at the product level within each market-area-specific plan. Each plan was asked about its top three commercial products.

This study employed a panel survey design with replacement and has been described previously (Horgan et al., 2016). The primary sampling units were the 60 market areas that the Community Tracking Study had selected to be nationally representative. The second stage sampled plans within market areas. Eligibility screening verified health plan operation in the market area and coverage of behavioral health services for a commercial population with more than 300 subscribers or 600 covered lives. Plans serving multiple market areas were defined separately and data were collected with respect to a specific market area.

The 463 health plan sample from 2003 plus health plans newly identified and selected during 2010 resulted in a fielded sample of 545 plans. Of these, 38 had merged with another plan in the same site and only the parent company was interviewed. After eliminating 107 plans ineligible due to closure (n=44), low enrollment (n=52), or not offering comprehensive commercial insurance (n=11), we had 438 eligible plans of which 389 responded (89%) reporting on 939 products. For the clinical portion of the survey 385 plans (88%) responded, reporting on 925 products. Non-respondents tended to be in larger metropolitan areas in the South and West. The 2003 survey had an 83% response rate. The Brandeis University Institutional Review Board approved this study.

2.2. Variables

2.2.1. Addiction Medications—This paper examined medications to treat addiction that were available as of 2010 (see Table 1): acamprosate (Campral®), oral naltrexone (generic and Revia®, separately), injectable naltrexone (Vivitrol®), and buprenorphine/naloxone (Suboxone®; hereafter referred to as buprenorphine); disulfiram was not included in the 2010 survey. Of these, only oral naltrexone was available in generic form in 2003 or 2010. Generic availability in 2003 and 2010 suggests that any changes in management of generic oral naltrexone over time was not due to a change in patent status. Injectable naltrexone was only approved to treat alcohol dependence at the time of the survey, although it received approval for opioid dependence in 2010. Health plans consider methadone treatment as a service, thus is part of the medical benefit rather than the pharmacy benefit; it is discussed briefly here in comparison. Although counseling is encouraged as an adjunct to medication, this paper focuses solely on the medication aspect of treatment.

2.2.2. Pharmacy Management Approaches—For each medication, several management approaches for pharmacy benefits were ascertained: (1) whether the medication was included on the formulary; (2) whether prior authorization was required before the patient could obtain the medication under the pharmacy benefit; (3) whether a step therapy or “fail-first” policy was in place, restricting first-line treatment by requiring evidence that another medication was tried first; and (4) the copayment tier on which the medication is placed. In general, tier 1 is least expensive, usually used for generics; tier 2 is moderately

priced, reflecting more expensive generics or brands preferred by the plan; tier 3 is the top tier in most instances, reflecting the newest and most expensive medications and non-preferred brands; tier 4 is used by some plans, reflecting unusual or very expensive medications. Injectable naltrexone requires a medical procedure (injection), so it was determined if it was covered under the medical benefit (covered as part of an office visit) rather than the pharmacy benefit (with copay for the medication itself). These tiered approaches were used for the pharmacy benefit of nearly all plans in both 2003 and 2010. A "restrictiveness" variable was created that combined prior authorization and step therapy, to indicate if a medication had neither, only one, or both approaches applied to it.

2.2.3 Pharmacotherapy Encouraged—Plans were asked if they encouraged the use of pharmacotherapy to treat alcohol dependence and opioid dependence (separately) and if they did so for primary care providers and specialty behavioral health providers (separately). If yes, they were asked what they did (feedback to providers, provision of guidelines, training, financial incentives, and recognition programs; for each type of dependence and in each setting).

2.3. Statistical Analysis

Findings reported are national estimates. The data are weighted to be representative of health plans' private managed care products in the continental U.S. Statistical analyses used SUDAAN software for accurate estimation of the sampling variance given the complex sampling design. Significant differences across medications are based on pairwise t-tests with a .05 significance level, adjusted for multiple comparisons using the Bonferroni correction. Where relevant, results for 2010 are compared to 2003 data; neither acamprosate nor injectable naltrexone was available in 2003.

3. Results

3.1. Sample Characteristics

Health plan products were fairly evenly split among HMO (28.7%), PPO (35.7%) and point of service (POS) (31.0%) product types in 2010, with a few consumer-directed products (4.6%) included (Table 2). About 15% contracted with an MBHO for behavioral health services. Nearly three-fourths contracted with a pharmacy benefits manager (PBM) for pharmacy services. Most products were offered by for-profit plans.

3.2. Access to Addiction Medications

3.2.1. Inclusion on Formulary—In 2010, inclusion of addiction medications on health plan formularies was nearly universal (Table 3). Oral naltrexone and buprenorphine were included on the formulary for more than 99% of health plan products and injectable naltrexone for 96.1% of products. Although acamprosate was the least likely to be on the formulary, it was still included for over 90% of products. In 2003 oral naltrexone was rarely excluded from formularies. Buprenorphine, on the other hand, was a new medication in 2003 and at that time was only on the formulary for 69.0% of health plan products. In 2010 no plans excluded buprenorphine. In contrast, coverage of methadone services decreased from 64.8% of products in 2003 to 40.8% in 2010 (data not shown).

3.2.2. Prior Authorization—While coverage of addiction medications expanded from 2003 to 2010, plans' requirement for prior authorization also increased (Table 3). Prior authorization was rarely used for the medications available in 2003. Buprenorphine was most likely to require prior authorization, but only by 7% of health plan products at that time. By 2010, prior authorization was common for brand oral naltrexone (33.6%) and buprenorphine (38.9% in 2010). Injectable naltrexone nearly always required prior authorization (85.3%), yet it was rare for acamprosate (3.4%) and generic oral naltrexone (1.1%).

3.2.3. Step Therapy—The step therapy approach was used infrequently for addiction medications in 2003, when most of these medications were fairly new on the market and disulfiram or methadone were the only prior addiction medications available (Table 3). In 2010, however, there was substantial use of step therapy for acamprosate (20.1% of products) and injectable naltrexone (40.5%). Oral naltrexone and buprenorphine almost never had step therapy requirements.

3.2.4. Restrictiveness—By examining whether products used both step therapy and prior authorization, only one of those, or neither, one can consider how difficult it might be to access each medication. Table 3 shows that such restrictiveness did vary across the medications, with generic oral naltrexone most likely to have no restrictions (98.9% of products), followed by acamprosate (77.0%), brand oral naltrexone (66.4%) and buprenorphine (61.7%). Injectable naltrexone had no restrictions in only 14.3% of products. Further, injectable naltrexone was the only medication to have both restrictions (40.1% of products). Acamprosate was the only medication for which plans relied primarily on the step therapy approach (19.7%), rarely using prior authorization only or both.

3.3. Tiering

Health plans seemed to follow a similar approach for addiction medications as for other types of medications, placing longer-established medications on a lower (less costly) tier, and brand medication on a higher tier if a generic is available (Table 4). In 2010, addiction medications were usually on tier 2 or 3, with the exception of generic oral naltrexone, which was nearly always on tier 1 (88.7% of products). Tier 4 was used rarely. Both acamprosate and brand oral naltrexone were more frequently on tier 3 than tier 2 (66.4% and 53.2% on tier 3, respectively). Buprenorphine was more likely to be on tier 2 (74.6%) than tier 3 (25.0%). Compared to 2003, tiering for generic oral naltrexone was similar, brand oral naltrexone moved away from tier 1 (32.2% in 2003 to 7.1% in 2010), and buprenorphine moved away from tier 3 (79.5% in 2003 to 25.0% in 2010).

Injectable naltrexone had a somewhat different pattern. For 59.0% of health plan products, injectable naltrexone was covered under the medical benefit. If the plan included it as part of the pharmacy benefit, it was nearly always on tier 3 (91.3%), with the remaining tiers rarely used.

3.4 Encouraging Use of Addiction Pharmacotherapy

A majority of health plan products reported taking steps to encourage providers to use pharmacotherapy. Nearly 55% of products encouraged pharmacotherapy for alcohol dependence within primary care practices, and 81.1% did so for opioid dependence in primary care practices (Table 5). About 86% of health plan products encouraged pharmacotherapy for alcohol dependence and opioid dependence in specialty behavioral health settings.

To better understand this concept of encouragement, plans were asked what they did. Nearly all products provided guidelines regarding addiction pharmacotherapy. Feedback to providers was common, although it is unknown what that involved. Feedback was more likely for alcohol dependence in primary care (81.9%) and opioid dependence in specialty care (71.0%) and less likely for opioid dependence in primary care (56.5%) and alcohol dependence in specialty care (44.5%). Trainings on addiction pharmacotherapy were reported by about one third to half of health plan products. Financial incentives were used in primary care settings (50.0% for alcohol, 36.2% for opioids) but not at all in specialty settings. In contrast, recognition programs were used in specialty settings (about 22% for alcohol and opioids) but were extremely rare in primary care settings.

4. Discussion

Overall, these findings show that private health plans are paying attention to addiction pharmacotherapy. Addiction medications are on the formulary, indicating that they are an essential part of the treatment toolbox. Management of addiction medications has increased, but is not ubiquitous. These inclusion and management patterns seem to reflect those commonly understood to be in place for other medications, but may still have the effect of restricting access for some individuals. Similar issues have been found in Medicaid and Medicare plans (Clark & Baxter, 2013; Clark et al., 2014; Kennedy, Dipzinski, Roll, Coyne, & Blodgett, 2011).

4.1. Impact of Pharmacy Management

Since 2003, management of addiction medications has moved toward traditional approaches used for pharmacy more broadly (Hoadley, 2005; Kaiser Family Foundation and Health Research & Educational Trust, 2015). For example, brand oral naltrexone is on the more expensive tiers, which is typical of plans' approach to brand medications when a generic is available. Generic oral naltrexone is always on the formulary and usually is not managed, as expected for generics. Although oral naltrexone had a generic form in 2003, it is worth noting that there were still changes by 2010 with almost no use of Tier 1 for the brand version, which was still common in 2003. Naltrexone first went off-patent in 1998, but a new generic formulation was released in 2002. Tiering in 2003 may have reflected an early stage of this transition of generic availability beyond a single source. Buprenorphine, without a generic version at the time of the 2010 survey, had nonetheless been moved to the less expensive tier 2 in many plans, versus tier 3 when it was a new medication in 2003. Further, it is likely that the reduced coverage of methadone from 2003 to 2010 reflected the increased coverage of buprenorphine during this same time period. Step therapy policies were not used

in 2003 when alternative addiction medications were rare (Horgan et al., 2008), yet as more addiction medications have become available, insurers are using step therapy to steer prescribers and patients to less costly alternatives as a first-line treatment when medications are used.

Injectable naltrexone is the exception as it is highly managed in most cases. At the time of the study, injectable naltrexone was still new and costly compared to other addiction medications. It not surprising that insurers would require the highest copay and would use multiple techniques to manage access, if oral naltrexone might be sufficient and is significantly cheaper. However, this more intensive management has the effect of limiting access to a medication that could potentially improve medication adherence for a subset of patients by eliminating the decision to take a pill every day. Injectable naltrexone may be of particular benefit in locations with shortages of buprenorphine prescribers, such as rural areas. In such instances the benefits may outweigh the greater costs of injectable naltrexone. Some manufacturers choose to directly subsidize the cost of medications (e.g., offering discounts to patients) as a way to improve access (Carroll, 2009) even if other restrictions are in place.

Health plans could do more in this arena. People with substance use disorders are often reluctant to access care (Cunningham, Sobell, Sobell, Agrawal, & Toneatto, 1993) thus any kind of barrier is amplified. If the goal is to encourage providers and patients to consider pharmacotherapy, removing access barriers is an important step. If health plans omitted prior authorization or step therapy altogether, or put these medications on lower cost-sharing tiers, patients and their prescribers might be more likely to consider medications as a treatment approach.

4.2 Health Plans Can Further Encourage Addiction Pharmacotherapy

This study shows that a majority of health plans promote the use of addiction pharmacotherapy, but there is room for improvement. Not all plans are active in this area and the low uptake of addiction pharmacotherapy, as reported in the literature, suggests that additional work would be beneficial. Health plans and their pharmacy benefits managers could adopt programs, performance measures, and incentive structures to further encourage providers to address addiction by making use of pharmacotherapy as an evidence-based practice. Performance measures for addiction pharmacotherapy could be used to identify potential areas for improvement, as well as to reward quality in this area (Thomas et al., 2013). Financial incentives and recognition programs are already used in some cases to encourage use of pharmacotherapy, but extending that approach may also increase uptake. It is interesting that the use of incentives and feedback varied by primary care and specialty providers. One possibility is that insurers already have incentive structures in place for PCPs, who are eligible for many types of incentives, so it is fairly straightforward to continue to incentivize new activities. And conversely, they may not have incentive structures in place for specialty providers. Why the provision of feedback varies is less apparent.

A goal should be to increase the number of prescribers. Primary care providers and psychiatrists are key target audiences, and health plans can reach out to their provider

networks to offer guidelines, education and training that address perspectives that exclude pharmacotherapy, lack of knowledge and other provider concerns. Training around addiction medicine is a key step, ensuring that physicians are more comfortable with assessing and acknowledging addiction, and providing care to with their patients who have addiction. With an additional layer of support and knowledge, physicians who receive such education may be more likely to consider prescribing addiction pharmacotherapy, and may develop support systems for when they do so.

Stigma may be a significant barrier among potential prescribers who may not want to treat addiction patients (Oliva et al., 2011; van Boekel, Brouwers, van Weeghel, & Garretsen, 2013). It may limit interest in learning more about addiction and its treatment, and likelihood of screening patients for addiction. Outreach by health plans to provide knowledge and guidance is one solution. Similarly, health plans may also have a role in engaging in a dialogue with specialty treatment programs in their networks that have traditionally relied on an abstinence-based approach, with substitute medications such as methadone viewed as conflicting with their treatment philosophy (Knudsen et al., 2010; Oliva et al., 2011).

4.3 Health Plans Can Help Address Structural Barriers to Pharmacotherapy

Even if a potential prescriber is aware and willing to treat patients with addictions, structural barriers are greatly limiting (Hutchinson, Catlin, Andrilla, Baldwin, & Rosenblatt, 2014; Thomas et al., 2008; Walley et al., 2008). Buprenorphine and injectable naltrexone have specific requirements for prescribers. Further, physicians, especially in primary care practices, have a wide variety of considerations that may limit what they prioritize or have time to do in an office visit.

Health plans could promote access to buprenorphine by encouraging providers to obtain the required DEA waiver by use of incentives to do so or by providing training and support for buprenorphine prescribers. The office-based approach for buprenorphine (as opposed to the clinic-approach for methadone) increases the potential role of primary care providers, similar to the change that occurred in antidepressant prescribing over the past two decades, but these additional requirements add a significant barrier to the process (Oliva et al., 2011; Wallack, Thomas, Martin, Chilingerian, & Reif, 2010).

Injectable naltrexone also faces structural barriers that health plans could help to address. For instance, injection requirements are a barrier for psychiatrists and specialty treatment settings that are not equipped for medical procedures. It would be of value to see what lessons could be learned from the use of injectable antipsychotics, which also face barriers (Getzen, Beasley, & D'Mello, 2014) but are appropriate for selected patients (Buckley et al., 2015), to increase the willingness of providers to administer injectable naltrexone when it is a preferred option.

It is worth noting that more than half of health plan products treat injectable naltrexone as a medical service, similar to vaccinations or chemotherapy, rather than as a prescription medication. Although this approach likely improves access for patients, it may affect whether a prescriber chooses to provide the injection, given that they would need to cover

the initial cost of the medication and bill the health plan for the medication and the services. This is a significant change from traditional prescribing, for which the acquisition, cost, payment and delivery are outside of the providers' realm. Health plans should evaluate the trade-offs when using this approach.

4.4. Beyond Health Plans

Increasing access to addiction medications does not fall solely in the realm of health plans and their pharmacy benefits managers. Similar to other areas of medicine, pharmaceutical companies may have a role in educating or training providers (Iheanacho et al., 2013; Knudsen et al., 2010), offering assistance with medication requirements and subsidizing patient copays for medications on the more expensive tiers. Barriers to addiction pharmacotherapy are wide-ranging and include organizational, provider and patient factors (Abraham, Knudsen, Rieckmann, & Roman, 2013; Baxter, Clark, Samnaliev, Leung, & Hashemi, 2011; Clark, Samnaliev, Baxter, & Leung, 2011; Heinrich & Hill, 2008; Iheanacho et al., 2013; Knudsen, Abraham, & Oser, 2011; Knudsen et al., 2010; Mark, Kranzler, Poole, et al., 2003; Mark, Kranzler, & Song, 2003; Oliva et al., 2011; Roman et al., 2011; Thomas et al., 2008; Wallack et al., 2010).

The barriers to addiction pharmacotherapy may require new approaches to be considered. Partnerships with primary care settings could provide access to medical care for addiction treatment programs that do not have in-house medical resources (Abraham et al., 2013; Reif, Thomas, & Wallack, 2007). The emergence of addiction medicine as a relatively new medical specialty should have similar effects by increasing the number of knowledgeable and interested providers. Treatment of depression or HIV may also serve as models for change, as medical conditions whose treatment was once highly stigmatized and relegated only to specialty providers.

This is a study of health plans and their activities, and as such, does not incorporate direct input from providers or patients. Although this study is limited to findings regarding health plans as organizations, health plans are key in ensuring access to treatment and medications.

5. Conclusion

Health plans applied several common mechanisms to place some limits on access to addiction pharmacotherapy. However, they also included all medications on formularies and encouraged providers to use them. Addiction pharmacotherapy is an evidence-based practice, yet many providers do not use it. It is essential to focus on the best way to deliver services for addiction across the variety of settings, payers, and benefits, to ensure that an individual in need of addiction treatment can access the most appropriate combination of medications and services. In particular, access to addiction medications should not be to the exclusion of other forms of treatment, such as outpatient therapy, a concern with treatment for mental disorders (Druss, 2010). Flexibility is key to patient-centered care, and access to medications is one piece of that puzzle.

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Table 1

Addiction Medications Available in 2010*

Medication name	FDA approval: Year (Indication)	Average wholesale price per month	Dosing frequency	Expected effects
Acamprosate	2004 (alcohol)	$58	2×/day	Reduces craving for alcohol and longer-term withdrawal symptoms
Naltrexone (oral)	1994 (alcohol)	$128 (generic) $258 (brand)	1×/day	Reduces craving for alcohol; precipitates opioid withdrawal
Naltrexone (injectable)	2006 (alcohol) 2010 (opioids)	$1,104	1×/month	Reduces craving for alcohol
Buprenorphine/Naloxone	2002 (opioids)	$138 - $202	1×/day	Opioid substitute; reduces withdrawal symptoms

Note. Average wholesale price sourced from 2010 Red Book (Thomson Healthcare, 2010).

*Excludes disulfiram

Table 2

Characteristics of Study Sample, 2003 and 2010

	2003			2010		
	N	***%***	***SE***	***N***	***%***	***SE***
Total (weighted N)	(7529)			(8427)		
Product type						
HMO	2206	29.3	0.9	2420	28.7	0.7
PPO	2703	35.9	1.6	3004	35.7	0.6
POS	2613	34.7	1.3	2613	31.0	0.4
CDP (consumer directed product)	0	0.0	0.0	390	4.6	0.6
Behavioral health contract						
Specialty External (MBHO)	5474	72.7	3.2	1251	14.8	2.3
Hybrid Internal	911	12.1	2.2	5899	70.0	3.3
Internal	1144	15.2	2.3	1278	15.2	2.2
Pharmacy benefits manager (PBM) contract						
Yes	4028	53.5	2.2	6150	73.0	1.9
No	3501	46.5	2.2	2277	27.0	1.9
Profit status						
For-profit	6445	85.6	2.3	7390	87.7	2.0
Non-profit	1084	14.4	2.3	1037	12.3	2.0

Table 3

Access to Addiction Medications in Private Health Plans, 2003 and 2010

	Acamprosate*		Oral naltrexone (generic)		Oral naltrexone (brand)		Injectable naltrexone*		Buprenorphine/naloxone	
	%	*SE*	*%*	*SE*	*%*	*SE*	*%*	*SE*	*%*	*SE*
2003 (weighted *N*)			(6632)		(6616)				(6747)	
On formulary			93.8	1.7	93.6	1.7			69.0	2.4
Prior authorization			0.4	0.2	1.6	1.2			7.1	1.6
Step therapy			0.2	0.1	0.0	0.0			0.4	0.1
2010 (weighted *N*)	(8420)		(8422)		(8299)		(7620)		(8422)	
On formulary[a]	91.6	1.6	99.5	0.1	99.1	0.2	96.1	0.8	100.0	0.0
Prior authorization[b]	3.4	0.6	1.1	0.3	33.6	1.9	85.3	2.9	38.9	2.6
Step therapy[c]	20.1	1.1	0.2	0.1	0.7	0.2	40.5	3.1	0.7	0.2
Overall restrictiveness[d]										
No restrictions	77.0	1.2	98.9	0.3	66.4	1.9	14.3	2.8	61.7	2.4
Only prior authorization	2.8	0.6	1.0	0.3	32.9	1.9	45.3	1.9	37.6	2.4
Only fail first	19.7	1.1	0.0	0.0	0.0	0.0	0.4	0.4	0.1	0.0
Both restrictions	0.4	0.1	0.2	0.1	0.7	0.2	40.1	3.1	0.7	0.2

*Not available in 2003.

[a]All comparisons across medications significant at $p < .05$

[b]All significant at $p < .05$ except oral naltrexone (brand) vs. buprenorphine

[c]All significant at $p < .05$ except acamprosate vs. injectable naltrexone, and oral naltrexone (brand) vs. buprenorphine

[d]All significant at $p < .05$ except oral naltrexone (generic) vs. injectable naltrexone, and oral naltrexone (brand) vs. injectable naltrexone

Table 4

Formulary Tiering for Addiction Medications in Private Health Plans, 2003 and 2010

	Acamprosate[a]		Oral naltrexone (generic)		Oral naltrexone (brand)		Injectable naltrexone[a,b]		Buprenorphine/naloxone	
	%	*SE*	*%*	*SE*	*%*	*SE*	*%*	*SE*	*%*	*SE*
2003 (weighted *N*)			(6219)		(6193)				(4658)	
Tier 1			82.7	2.6	32.2	2.2			4.1	0.8
Tier 2			15.8	2.9	23.6	2.5			16.4	2.7
Tier 3			1.6	1.2	44.2	3.8			79.5	3.0
2010[c,d] (weighted *N*)	(7691)		(8332)		(8205)		(2548)		(8400)	
Tier 1	0.0	0.0	88.7	1.7	7.1	0.5	0.2	0.2	0.1	0.1
Tier 2	33.5	1.5	11.2	1.7	37.6	1.8	8.2	1.4	74.6	1.8
Tier 3	66.4	1.5	0.1	0.1	53.2	1.9	91.3	1.4	25.0	1.8
Tier 4	0.1	0.1	0.0	0.0	2.0	0.6	0.4	0.2	0.3	0.2
Benefit[e] (weighted *N*)							(6217)			
Medical							59.0	2.4		
Pharmacy							41.0	2.4		

Notes. Higher tier denotes higher cost-sharing.

[a] Acamprosate and injectable naltrexone were not available in 2003.

[b] For injectable naltrexone, tiering was only determined if not covered by the medical benefit.

[c] Excludes missing data (<0.5% for all medications except injectable naltrexone = 14.8%).

[d] All significant testing compared the combined Tier 3 and 4 response across medications; all differences significant at $p < 0.05$.

[e] Only asked for injectable naltrexone.

Table 5

Health Plan Activities to Encourage Addiction Pharmacotherapy, 2010

	Primary Care				Specialty Care			
	Alcohol		Opioids		Alcohol		Opioids	
	%	*SE*	*%*	*SE*	*%*	*SE*	*%*	*SE*
Plan encourages use of pharmacotherapy (weighted *N*)	(7444)		(7575)		(8281)		(8273)	
No	45.3	1.5	18.9	1.6	13.7	2.0	13.8	2.0
Yes	54.7	1.5	81.1	1.6	86.3	2.0	86.2	2.0
If yes, Encouraged through (weighted *N*)	(4074)		(6092)		(7109)		(7091)	
Feedback to providers	81.9	2.9	56.5	2.0	44.5	1.6	71.0	2.1
Provision of guidelines	98.8	0.6	99.2	0.4	97.9	1.0	97.9	1.0
Trainings	42.1	2.9	32.1	1.6	54.2	2.3	54.3	2.3
Financial incentives	50.0	2.6	36.2	2.2	0.1	0.0	0.1	0.0
Recognition program	1.8	1.5	2.8	1.1	21.9	1.6	22.0	1.6