Building an Alternative Distribution Model for Ultra-Orphan Diseases

Biopharmaceutical manufacturers turn to a direct-distribution model to leverage opportunities for cost-effective drug delivery and personalized health management services.

—By Penny Bemus, MBA, JD Centric Health Resources

**THE FEDERAL GOVERNMENT DEFINES A RARE DISEASE**
as one that affects fewer than 200,000 people in the United States, and the National Institutes of Health estimates that 6,000 rare disorders affect approximately 25 million Americans.[1] Most of these “orphan diseases” are serious, crippling, or life-threatening disorders that pose a desperate need for therapeutic advancements.[2] The wide range of conditions that fall within this definition of orphan diseases has led to the emergence of an informal subcategory—called ultra-orphan diseases—to describe extremely rare conditions. While the term has no formal legal definition, the treatments for these very rare, ultra-orphan diseases have become known as “ultra-orphan drugs.”[3]

Today, specialty drugs for these ultra-rare disorders are being developed and introduced, with product distribution managed by large specialty pharmacies. Their role in the marketplace is generating significant attention since an individual who has a rare orphan disease typically uses therapies valued at $150,000 annually.[4] For example, a hemophilia patient with an inhibitor can cost upwards of $1 million a year challenging the budgets of individuals, employers, and health plans. The addition of just one patient to a designated population pool can impose potentially catastrophic expenses if the condition is not effectively managed.

This is where specialty pharmacies provide highly valuable services. They are under contract with managed care organizations, self-insured companies, and government programs to provide and monitor drug distribution and networks, perform drug utilization review, and deliver outcomes and disease management. While most of these companies strive for efficient and effective delivery of therapy, there is a new breed of specialty pharmacy focused solely on orphan disorders that also offers patient-specific health management services, providing consumers and their families with individualized guidance, coaching, and empowered self-care.

By acting as the manufacturer’s agent, rather than simply as a trading partner, this specialty-pharmacy, direct-distribution model provides benefits to all of the involved parties—manufacturer, patient, physician, and payer. The approach, pioneered by Centric Health Resources, not only connects individuals with specialty pharmaceuticals, but it also offers a comprehensive blend of tailored programs that are quickly becoming an important part of effectively addressing the multitude of issues surrounding the treatment of rare, ultra-orphan diseases. This distinctive model goes beyond simply mitigating costs—it actually improves patient compliance with therapy, drives better

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**TABLE 1: Diseases treated with biologic or injectable agents**

<table>
<thead>
<tr>
<th>Disease</th>
<th>(U.S.) Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psoriasis</td>
<td>5.8–7.5 million</td>
</tr>
<tr>
<td>Hepatitis C infections</td>
<td>3.9 million</td>
</tr>
<tr>
<td>Rheumatoid arthritis</td>
<td>2.1 million</td>
</tr>
<tr>
<td>Severe allergic asthma</td>
<td>500,000</td>
</tr>
<tr>
<td>Crohn’s disease</td>
<td>380,000–480,000</td>
</tr>
<tr>
<td>Multiple sclerosis</td>
<td>400,000</td>
</tr>
<tr>
<td>“Orphan” is &lt;200,000 as defined by Orphan Drug Act of 1983</td>
<td></td>
</tr>
<tr>
<td>Alpha-1 antitrypsin deficiency</td>
<td>100,000</td>
</tr>
<tr>
<td>Sickle cell anemia</td>
<td>91,000</td>
</tr>
<tr>
<td>Cystic fibrosis</td>
<td>30,000</td>
</tr>
<tr>
<td>“Ultra-orphan” is generally defined as &lt;20,000</td>
<td></td>
</tr>
<tr>
<td>Fabry’s disease</td>
<td>5,000</td>
</tr>
<tr>
<td>Gaucher’s disease</td>
<td>2,500</td>
</tr>
<tr>
<td>Tyrosinemia type 1</td>
<td>2,500</td>
</tr>
<tr>
<td>Mucopolysaccharidosis (MPS 1)</td>
<td></td>
</tr>
</tbody>
</table>

SOURCES: National Gaucher Foundation; National Heart, Lung, and Blood Institute; Calkins 1986; National Multiple Sclerosis Society; National Institute of Arthritis and Musculoskeletal and Skin Diseases; CDC 1998; Alpha One Foundation; Genzyme Corp.; and Rados 2003.
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outcomes, and provides additional long-term support for patients and their caregivers. Fostering a culture of caring and a conviction that patients with chronic disorders require more than just clinical therapy, this innovative model focuses on the patient and aligns the incentives of all participants in the continuum of care. It is a comprehensive approach that addresses multiple aspects of a patient’s life and results in positive behavior change that benefits all constituents involved in the delivery of care—patients, manufacturers, payers and physicians.

These personalized services have been incorporated into a direct distribution and health management model that is now available to manufacturers of specialty products. It has become an attractive option since the model also offers flexibility, allowing manufacturers to bundle or unbundle a full range of services.

The ultra-orphan disease landscape

Ultra-orphan diseases include rare chronic disorders, such as alpha-1 antitrypsin (AAT) deficiency, hemophilia, primary immune deficiencies, hereditary angeoedema, chronic inflammatory demyelinating polyneuropathy (CIDP), pemphigus and many others. Because they collectively affect so many Americans, finding treatments for these diseases is a serious public health concern.[5]

According to a recent survey conducted by the National Organization for Rare Diseases (NORD), the rare disorders community is underserved and burdened in a number of areas. Among their key findings were:

• One in seven patients remained undiagnosed for six years or more.
• 42% of respondents are prevented from working due to their rare disorder.
• 77% of respondents report that their rare disorder has caused the patient or their family a financial burden – with 32% characterizing that burden as “extreme.”
• A majority of respondents find it difficult to locate information related to their disorder.
• 28% of patients had treatment denied or delayed due to insurer pre-approval requirements.
• 10% of respondents were denied a referral to a specialist by their insurer.
• 45% of patients would be likely to use experimental treatment.[6]

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management, and FDA compliance services can be delivered in both a bundled or unbundled platform:

- Receiving and inventory management of finished product
- Processing initial prescription, including counseling
- Overnight shipment of product direct to patients
- Intake, insurance verification, pharmacy, reimbursement
- Nursing, education, and training
- Peer health coaching, which involves real-time, non-medical interventions
- Clinical support from registered nurses
- Collections, patient-assistance programs
- Wholesale distribution to hospitals
- Robust and flexible reporting
- Patient loyalty and retention programs
- Risk Evaluation & Mitigation Strategy (REMS) design and implementation

Manufacturers appreciate this flexible arrangement since they can use one service, a selection of services, or all of the services—whichever customized approach best serves their needs. A broad range of programs are available to support clinical trials all the way through distribution.

This type of supply management platform serves both patients and manufacturers because it creates an ideal environment for keeping patients on service—at home or on the road. Patient compliance and program loyalty have proven to lead to an improved return-on-investment for manufacturers. In addition to improved margins and better pricing management, the direct distribution model also provides data, aids inventory control and forecasting, connects with the patient community, and promotes retention and overall health management.

The bottom line: an integrated service model allows for a focus on individual well-being and compliance, driving better outcomes for patients and improved performance for manufacturers.

**Integrated services**

This innovative business platform requires the expertise of a development team of healthcare professionals with extensive experience in rare, chronic disorders and the capabilities to conduct specialized patient outreach programs. Their individual and collective resources can be applied to centralized areas of operation, services, supply management, and data reporting, promoting a vertically integrated best-in-class offering that maximizes opportunities for consistent patient experiences.

Services should target an entire disease or condition, as opposed to operating in silos. These include: health management, intake “hub,” third party logistics, administration, reimbursement/collection support, nursing, population- or company-specific wholesale/pharmacy outcomes measurement and reporting, data analytics and reporting, and risk evaluation and mitigation strategies (REMS) and post-market surveillance, if required.

Warehouse facilities should be compliant to Current Good Manufacturing Practices (cGMP), featuring a pharmacy facility that is fully equipped and has the skill to inventory and distribute low-volume, ultra-orphan products. An integrated model reduces the costs associated with managing multiple vendors, reduces the risk of service breakdowns resulting from fragmented coordination among partners, and provides channel integrity by reducing the risk of counterfeiting or diversion.

- Efficient and rapid implementation of the model should involve a multiphase ramp-up to meet the manufacturer’s needs:
  - Within 30 days: transition and secure reimbursement for clinical trial patients, fill initial stocking orders to hospitals, and enroll and process new referrals.
  - Within 90 days: execute full program startup and be working closely in the detailed development of the specific plan based upon particular program specifications.
  - Within 91 to 360 days: execute the full program as above, while developing and implementing a comprehensive health management program.

**Tailoring services for better outcomes**

A direct distribution model delivers an advantageous pricing platform that can concurrently provide comprehensive health care management services for ultra-orphan patients. This translates into ongoing patient assessments, the development of an individual care plan between patient and physician, targeted educational interventions, patient monitoring, and outcomes data collection and reporting. Centralized areas of operation, services, supply management, and data reporting also support a vertically integrated, best-in-class offering that maximizes opportunities for consistent patient experiences.

Its scope includes the clinical, psychological, lifestyle, social, financial, and other related effects, and offers alternatives to treat each facet of the patient’s life. Direct distribution accompanied by comprehensive health management also protects consumer interests through services that optimize care, increase therapeutic compliance,
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improve safety and promote customer retention. It can successfully advance optimal reimbursement from healthcare payers nationwide, support value-based benefit design initiatives and pay-for-performance demands, and enhance the standards of excellence for manufacturers facing the challenges and special requirements of bringing ultra-orphan drugs to market.

As manufacturers transition to this innovative approach to distribution, they will engender patient loyalty, adherence to therapy, and results that ultimately benefit all corporate and consumer stakeholders.  

References
2 Meyers, Abbey S.; National Organization for Rare Disorders (NORD); Workshop on Ultra-Orphan Genetic Disease Therapeutics; Washington, DC May 8–9, 2003; http://www.rarediseases.org/news/speeches/workshop Ultraorph_gen_disease
3 National Institute for Health and Clinical Excellence; Appraising Orphan Drugs.

ABOUT THE AUTHOR
Penny Bemus, MBA, JD, is Vice President, Business Development, for Centric Health Resources (17877 Chesterfield Airport Rd. Chesterfield, MO 63005; tel: 636 519 2400; www.centrichealthresources.com). Previously, she was managing partner and board member of Legacy Pharmaceutical Packaging LLC, A St. Louis-based contract packaging company, and has held management positions with Huttig Building Products, Inc. and General Electric.

A MEETING FOR ADDRESSING ULTRA-ORPHAN-DISEASE MEDICATION MANAGEMENT

Centric Health Resources’ first-ever conference, “Innovative Approaches to Addressing the Needs of Ultra-Orphan Disorders,” September 9 and 10, 2008, highlighted the need to find ways to deliver high-cost, low-volume drugs to the patients who desperately need them. More than 50 representatives from manufacturers, consulting firms, patient advocacy groups, venture capital firms, and other industry professionals attended this Centric-sponsored conference.

The event kicked off with dinner and networking, and continued the next morning with a full-day conference focused on trends in the marketplace—from the perspective of the FDA, payers, patient advocacy, health management, legal, and venture capital—and ended with presentations and discussion regarding innovative approaches for the orphan marketplace.

Save the date for the 2009 “Innovative Approaches” conference to be held on August 25 and 26 in St. Louis, Mo. Please call Penny Bemus at 636-519-2758 or e-mail pbemus@centrichealthresources.com for more information, participation, and sponsorship opportunities.