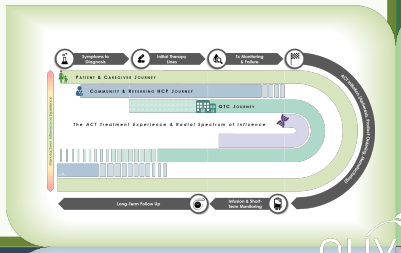
The Curious Case of CAR-T Therapies

Commercial Success with Autologous Cell Therapies (ACTs) is Dependent on Pharma Breaking Traditional Operational Silos & Ways of Working

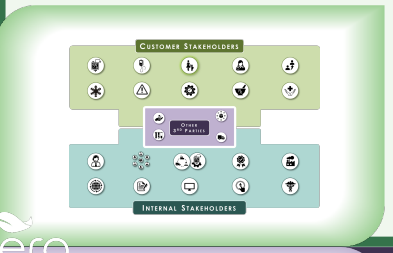
A ORCHESTRATING A SEAMLESS TREATMENT EXPERIENCE: *Multiple healthcare stakeholders, multiple visits, extended stays, etc. significantly change this treatment experience for patients compared to traditional therapies*

1. **Evaluate the Entire Patient Treatment Experience:** *Ensure you have mapped the experience patients undergo prior to becoming aware of, and learning more about your cell therapy option – Identify when, where, and how are patients are 'sold' on an ACT and what barriers exist that would get in the way*
2. **Incorporate the Impact of the Cell Journey:** *Consider what impact cell collection, transport, manufacture, and delivery have on the cadence of treatment experienced by your patients and the physicians coordinating treatment*
3. **Understand Timing of Support:** *Consider how you'll manage financial assistance and the associated requirements that might rest with certified treatment centers in sharing the costs associated*
4. **Consider the Impact of Travel Requirements:** *Patients (and their caregivers) are typically required to undergo extensive stays away from home, especially post-infusion – what needs exist along the way?*
5. **Pinpoint Opportunities for Engagement:** *What are the various touchpoints needed with both patients and HCPs as their cell therapy unfolds? What updates are provided to keep everyone informed without getting in the way?*



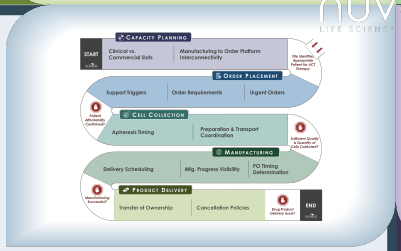
B MOBILIZING A WIDER SET OF STAKEHOLDERS: *The number of internal & external stakeholders involved require an exceptional level of communication & coordination*

1. **Incorporate Community Physicians:** *Its critical to instill confidence in community physicians that cell therapies are not only safe and a viable option, but referring patients to certified treatment centers does not constitute 'losing a patient'*
2. **Think Broadly Around Certified Site Stakeholders:** *Think broadly about the range of stakeholders involved within the qualified treatment centers to ensure the variety of issues that can arise are effectively identified and aligned to internal roles and responsibilities*
3. **Identify Clinical vs Commercial Commonalities:** *Various operational stakeholders involved with enabling clinical trials will also be involved with delivery post-approval – identify which stakeholders remain the same to isolate and leverage similar processes across both clinical and commercial settings*

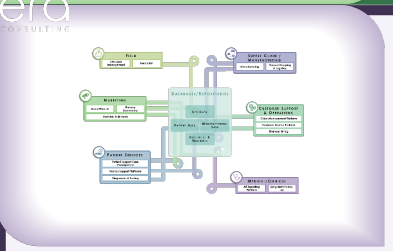


4. **Prioritize Internal Coordination:** *Not only will new roles need to be developed to address ACT customer needs, but the way which internal roles will need to interact will evolve dramatically – ensure effective mapping of commercial role responsibilities and interactions*
5. **3rd Party Partners:** *At the very least, cell logistics will likely be managed externally, mapping data/communication channels to enable real-time updates will be critical to end-customer support*

C FACILITIATING A COMPLEX USE PROCESS: *Each ACT product order requires much more involvement from authorized sites, giving operational decisions an outsized impact on the treatment experience*



1. **Ease Site Burden:** *Various approaches to ACT order management may place a significant burden on qualified treatment centers by requiring special equipment, new IT policies, etc. – ensure your approach to order design is integrating into existing site workflows*
2. **Define Order Placement Requirements:** *Establishing clear policy direction organizationally to guide order process design is essential when considering whether cell pick-up or manufacturing processes can occur without a financial commitment from the treatment center*
3. **Clarify Support Triggers:** *Where within your order placement process will patient support be requested? How are you marrying the patient support request capability within an order to potentially directly offering support to patients outside of your order management system?*
4. **Solidify Rescheduling & Cancellation Policies:** *At what points in the process will you allow sites to cancel or change the parameters of an order – Determining how these requests and scenarios will be managed early on can help moderate potential issues later in the commercialization process*



D INTEGRATING A BROAD ARRAY OF SYSTEMS: *Supply chain, manufacturing, operations, account mgmt., finance, require extensive data integration*

1. **Think Broadly:** *ACT Technology planning is typically focused on enabling cell collection and manufacturing – think beyond this core issue to consider how operational and field teams may have to be engaged with site certification & management, along with other key activities across the business such as patient support and/or general account management activities*
2. **Know that Off-the-Shelf Doesn't Exist:** *While there may be components within the technology ecosystem that are more turn-key, no fully integrated technology solution currently exists, nor likely will it ever based upon the unique needs of each ACT manufacturer*
3. **Maintain Awareness of Site Fatigue:** *Its important to recognize that Treatment Centers are often exhausted with various conflicting processes and technology components so designing your ecosystem to best accommodate their existing practices will create a more satisfactory customer experience*
4. **Recognize Your Tech Ecosystem Enables the Customer Experience:** *Beyond whatever ordering platform you provide your future customers, your technology ecosystem will also need to enable flawless coordination between internal team members, easy access to site-relevant materials (training, forms, etc.) and visibility to certification/order status amongst specifically approved team members as you balance sales vs operations*

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