

Supplementary Table 3. Capacities matrix for treatment coordination in a CGT hub and spoke model

Treatment Coordination				
Actor	Characteristic	Hub	Spoke	Partner Spoke
Supply chain planner	Ensures supply of raw materials, components, resources, etc., at various time points in the end-to-end process	✓	X	X
Patient operations professional	Liaises with therapeutic centers on behalf of patients; accepts, tracks, and fulfills the therapeutic product order	✓	✓	✓
	Liaises with hub to ensure the fulfilment of CGT	✓	X	X
Patient outcomes follow-up	Liaises with therapeutic centers to track long-term patient outcomes and keeps the payer/insurance coordinator informed	✓	✓	X
	Liaises with CGT registrar and collects longitudinal data on patients	✓	✓	X
	Shares longitudinal data with hub registrar	✓	✓	X
CGT registrar	Records real-world data on therapies used, treatment conditions and evaluations, and longitudinal data on patients	✓	X	X
Visibility and monitoring unit	Monitors product and material flow across the hub and spoke	✓	X	X
	Ensures that the chain of identity and chain of custody are maintained			
IT harmonization unit	Works with IT departments in the hubs and spokes to facilitate and standardize collection, breakdown, and analysis of patient, tissue, transport, and manufacturing outcomes	✓	X	X
E2E delivery accountable	Coordinates all batches that are time critical, E2E, vein-to-vein, across all supply partners and shipping facilities	✓	X	X
E2E quality accountable	Coordinates the quality of all batches, bringing together the input of all supply partners and shipping facilities	✓	X	X
Logistics coordinator	Manages delivery of items from treatment center to manufacturing facility, between facilities, and from manufacturing facility back to the treatment center	✓	X	X
	Deals with any schedule changes			
	Manages delivery of blood/apheresis collected at partners to hub or spoke	X	X	✓
	Manages delivery of items to spoke from manufacturing and from spoke to manufacturing in the hub	X	✓	X

Accountant	Accrues and tracks orders, incoming patient material (if billed separately), works in progress, finished goods (likely using job costing for personalized medicine), and patient treatment receipt (to recognize revenue)	✓	✓	X
Payer/insurance coordinator	Requests and pursues appropriate payment according to the agreed schedule, including any outcome-based factors, liaising with the payer organizations (sometimes over the long term)	✓	✓	X

CGT, cell and gene therapy; E2E, end-to-end; IT, information technology.

✓, has capacity; X, does not have capacity.

Note: Cells highlighted in green indicate new roles within a hub and spoke model that are typically not present in existing models of CGT delivery.