

LIVER ALLOCATION: A PATIENT-CENTRIC APPROACH IN REGIONS 1 AND 9

Patricia A. Sheiner, M.D.

President, New York Center for Liver Transplantation
Director, Liver Transplantation, Westchester Medical Center

Regional Sharing: Our Experience

- Broader sharing works for patients
- Liver allocation should put patients first, NOT programs
- No evidence in our experience that broader sharing has negatively impacted patient or graft survival due to longer travel distances or ischemic time
- Patients should not die because of arbitrary geographical limitations

Regional Characteristics

Region 1

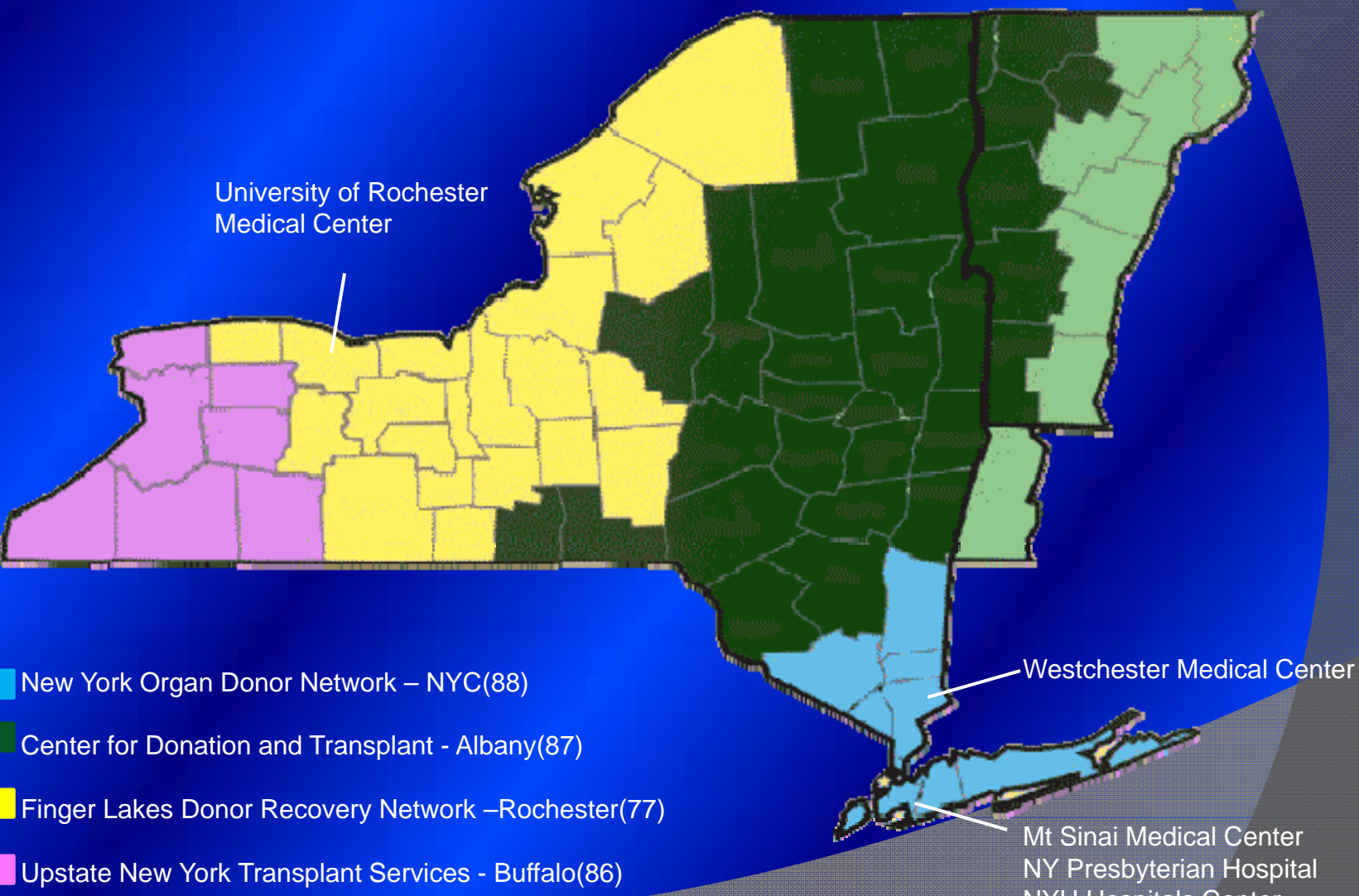
- ▶ Acts as a broader sharing scheme because 1 OPO covers all but one program in New England
- ▶ Covers 70,000+ sq miles
- ▶ Average cold ischemia time is 7 hours

Region 9

Statewide sharing of livers in NY for 20 years
47,000 sq miles, 400+ miles between farthest
“local” DSA and liver transplant program
Single patient waiting list for all regionally
recovered organs

Average cold ischemia time is 8 hours

Region 9 DSA map

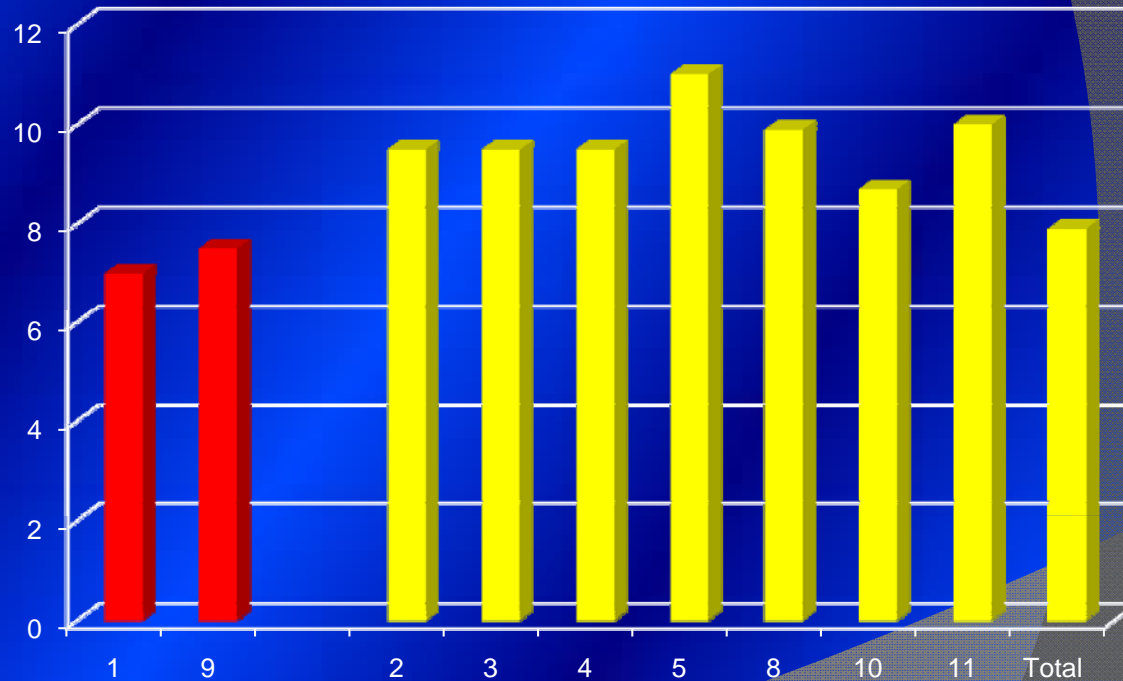


T: Regions 1 and 9

/07-10/09

DPO Region	# of Txps	Mean CIT(hrs)
	444	7.0
	65	9.6
	97	9.5
	17	9.5
	11	11.0
	23	9.9
	800	7.5
	18	8.7
	124	10.0
Total	1599	7.9

Regions 1&9 Mean Cold Ischemia Time by Region of Donor Origin (hrs)



Based on OPTN data as of 3/5/10

1,599 adult transplants in the past 3 years (78% with regional livers), with an overall average CIT of approximately 8 hours.

Region 9 adds on average 2 hours of CIT (9.6 hrs) when traveling for an out of region liver that has been discarded by its local region.

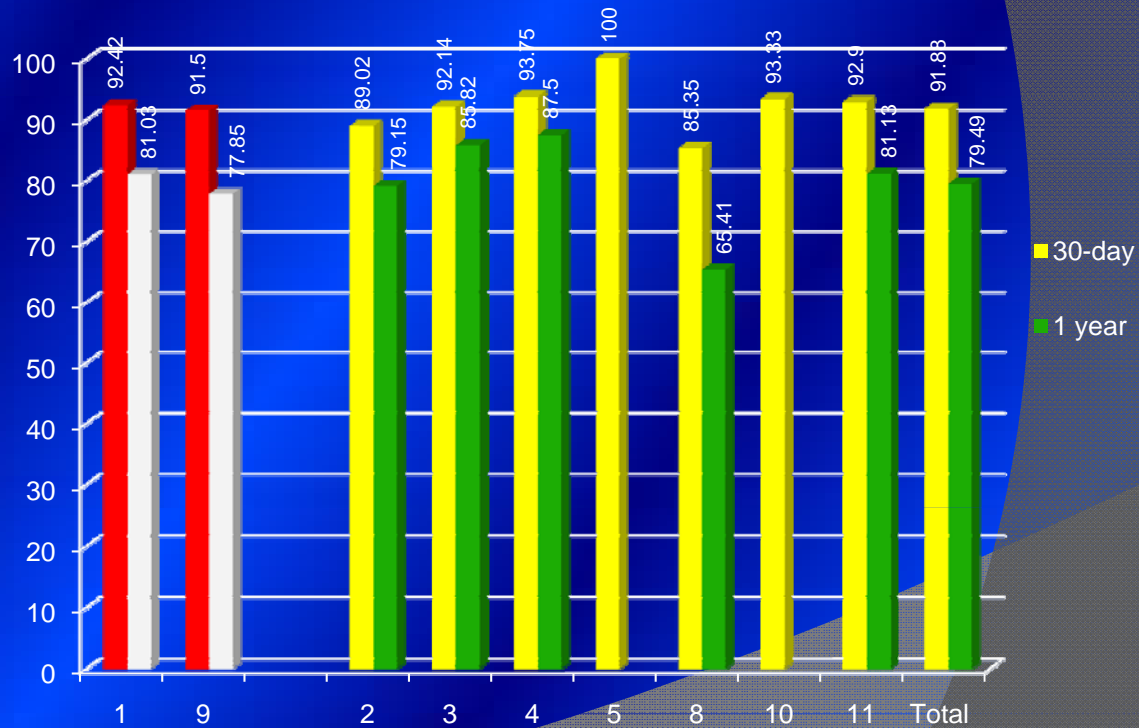
Average CIT for locally recovered transplants done in Region 1 is 7 hours – and 3.5 hours CIT (10.7 hrs) is added when traveling for an import.

Graft Survival: Regions 1 & 9

Meier Graft Survival(1/07-10/09)

# of Txp	Month Post- txp	Survival Rate
444	1	92.42
	12	81.03
65	1	89.02
	12	79.16
97	1	92.14
	12	85.82
17	1	93.75
	12	87.50
11	1	100.00
23	1	86.36
	12	66.41
800	1	91.60
	12	77.85
18	1	93.33
124	1	92.90
	12	81.13
1599	1	91.88
	12	79.49

Regions 1&9 30-day and 1-year Graft Survival Rate by Region of Donor Origin



Region of Donor Origin

Region 1 had a 92% graft survival rate at 30 days and 81% at 1 year, ave MELD=29 with transplants done using a regionally recovered liver.

Region 9 had 92% and 78% graft survival rates at 30 days and 1 year, respectively, ave MELD=29.2.

The average MELD score in Region 9 when using imports is 21. In Region 1 it is 24.

Imports have been passed over by local centers and the majority have 2+ ECD characteristics.

Graft survival rates with imports are equal to or better than transplants using local organs

Using Liver Imports: Beyond the Regional Sharing Experience

Region 9 is a net importer: 747 import offers 2007-2009 – 53% (394) were used

31% of all patients (372/1242) transplanted in Region 9 were done using a liver “turned down” from another region

73% of those were from the eastern seaboard (60 more were from farther away)

Nationally, broader sharing
has the potential to reduce
discards significantly

Socioeconomic system of liver allocation

Regions with higher MELD scores at transplant are seeing about 10% of their list travel to regions with lower MELD scores at transplant

“Reverse” broader sharing – patients with means can travel to an organ, patients with fewer means are unfairly excluded, essentially creating a two-tiered system of liver transplant based on socioeconomic status

Broader sharing works for *patients*

Outcomes are comparable for *patients*

Current system of sharing is not fair to *patients* – regional sharing is not broad enough in areas that shoulder the greatest disease burden

Need national sharing scheme that is modeled on disease burden or population based concentric circles model

The change process is slow and painful (added governmental review this past December makes it slower and more painful)

We need an interim plan for *patients*

System of Regional Partnerships

Set up regional partnerships to share livers

Pair exporting regions with regions that have demonstrated greater need

Automatically share potentially discarded livers with the partner region

Non-controversial – simply sharing organs that would have been discarded within the region anyway

Expedite placement process for local OPOs

Interim solution for the existing problem

Regional sharing is important,
but in areas with greatest
disease burden regional
sharing is not enough



SHARON

Wife

Mother of 3

Grandmother of 5

- 2004 MELD of 9
- 2008 MELD of 13
- 2009 – Dramatic change in health
- MELD rose from 21 in January to 40 in March
- Sharon Died on March 28, 2009 waiting for a liver