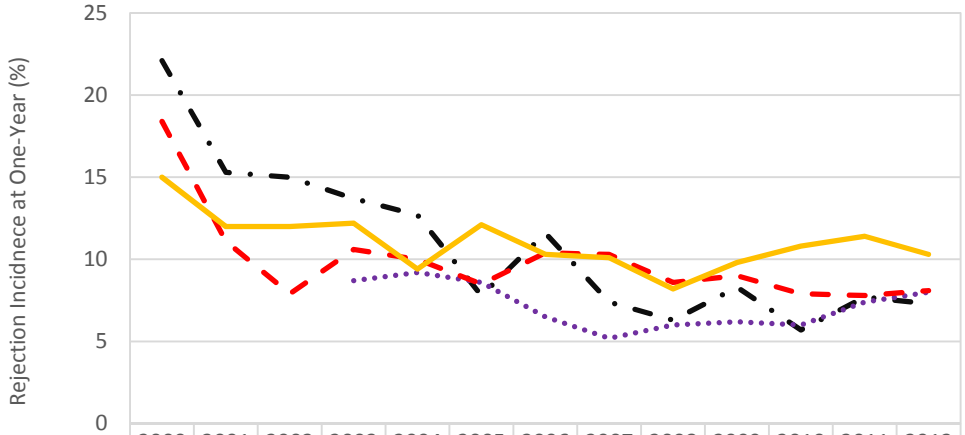
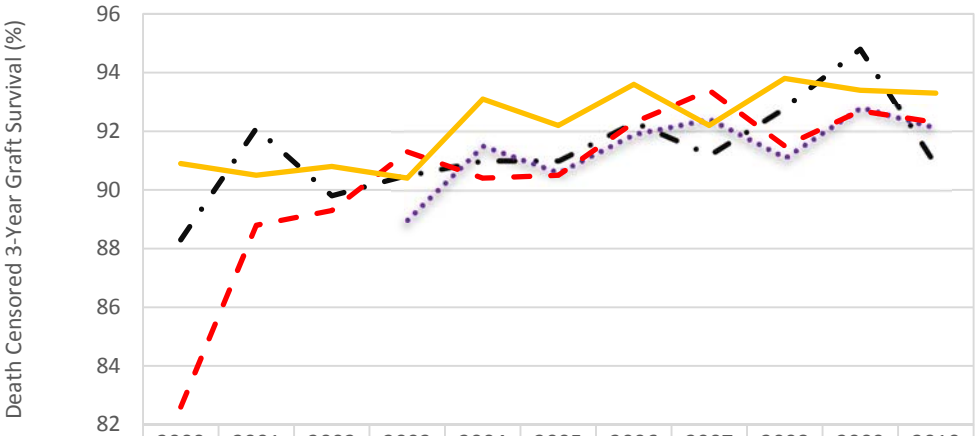
SUPPLEMENTAL FIGURES:

Figure S1. Acute rejection incidence at one-year by induction type and transplant year in the entire cohort.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
No induction	22.1	15.3	15	13.7	12.7	7.8	11.6	7.4	6.3	8.3	5.7	7.7	7.3
Alemtuzumab				8.7	9.2	8.6	6.5	5.2	6	6.2	6	7.4	8
rATG	18.4	11.1	7.9	10.6	10	8.5	10.4	10.3	8.6	9	7.9	7.8	8.1
IL2-RA	15	12	12	12.2	9.4	12.1	10.3	10.1	8.2	9.8	10.8	11.4	10.3

Figure S2. Three-year death censored graft survival by induction type and transplant year in the entire cohort.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
No induction	88.3	92.1	89.8	90.5	91	91	92.3	91.2	92.8	94.8	90.8
Alemtuzumab				89	91.5	90.6	91.9	92.4	91.1	92.8	92.1
rATG	82.6	88.8	89.3	91.3	90.4	90.5	92.3	93.4	91.5	92.7	92.3
IL2-RA	90.9	90.5	90.8	90.4	93.1	92.2	93.6	92.2	93.8	93.4	93.3

SUPPLEMENTAL TABLES:

Table S1. Causes of death in LRT recipients

Cause of death	IL2-RA	r-ATG	No induction	P-value
Steroid (N=2,450)				**<0.001**
Graft failure (%)	1.3	0.9	1.2	
Infection (%)	15.2	8.2	11.2	
CVS (%)	25.2	22.8	22.5	
Malignancy (%)	14.3	17.9	10.5	
Other (%)	44.1	50.4	54.7	

Cause of death	IL2-RA	r-ATG	Alemtuzumab	P
No-steroid (N=574)				**<0.001**
Graft failure (%)	2.1	0.7	0.0	
Infection (%)	7.5	13.9	8.9	
CVS (%)	17.0	26.4	17.7	
Malignancy (%)	19.2	23.6	14.1	
Other (%)	54.3	35.4	59.4	

Table S2. Causes of allograft failure in LRT recipients.

Cause of graft failure	IL2-RA	r-ATG	No induction	P-value
Steroid (N=2,813)				**<0.001**
Acute and chronic Rejection (%)	**57.0**	48.4	51.2	
Infection including BK (%)	6.8	6.5	5.7	
Surgical complications (%)	2.3	3.8	3.1	
Recurrent disease (%)	9.7	12.0	8	
Primary failure (%)	3.5	3.6	7.5	
Other (%)	20.7	25.7	24.6	

Cause of graft failure	IL2-RA	r-ATG	Alemtuzumab	P
No-steroid (N=781)				0.072
Acute and chronic Rejection (%)	**52.3**	46.6	43.7	
Infection including BK (%)	4.5	10.0	7.2	
Surgical complications (%)	4.5	5.9	2.9	
Recurrent disease (%)	8.1	5.6	10.4	
Primary failure (%)	3.6	4.1	2.2	
Other (%)	27.0	27.9	33.7	

Induction Therapies:

Basiliximab (Novartis, East Hannover, New Jersey, US) is currently only IL2-RA preparation available in the US, approved by the FDA in 1998.[1] Basiliximab is chimeric monoclonal antibody (75% human and 25% murine protein) which primarily abrogates T cell proliferation by binding to alpha subunit of IL2 receptor (CD25), a major growth factor for activated T lymphocytes.[2]

Alemtuzumab (Campath, Genzyme–Sanofi, New Jersey, US) is a humanized monoclonal rat antibody which targets CD52, a glycoprotein expressed on all mononuclear cells and male germ lines, and causes prolonged intense depletion of T and B cell lymphocytes, macrophages, monocytes, natural killers.[3] It initially received the FDA approval in 2001 in the treatment of B-cell chronic lymphocytic leukemia. Kidney transplantation has been one of its off label uses to treat and prevent rejection, especially in the calcineurin inhibitor (CNI) and steroid minimization protocols, since 1998. The drug was withdrawn from the market in 2012 to relicense for another indication, Multiple Sclerosis, but the FDA declined the application in 2013. It is currently available free to transplant centers through a special registry program.

rATG is a purified immunoglobulin derived from rabbit after immunization with human thymocyte that comprise cytotoxic antibodies directed against multiple antigens (CD2, CD3, CD4, CD8, CD18, CD25, CD44, CD45, HLA-DR, HLA Class I heavy chains, and B2 micro-globulin) expressed on human T lymphocytes.[4] Thymoglobulin (Genzyme-Sanofi, Cambridge, Massachusetts, US) was approved for treatment of acute rejection in renal transplantation in 1998, but not as an induction agent yet.

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