British HIV Association
BHIVA

Professor John O'Grady

King's College Hospital, London

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COMPETING INTEREST OF FINANCIAL VALUE ≥ £1,000:	
Speaker Name	**Statement**
John O'Grady	None
Date	**22 September 2012**

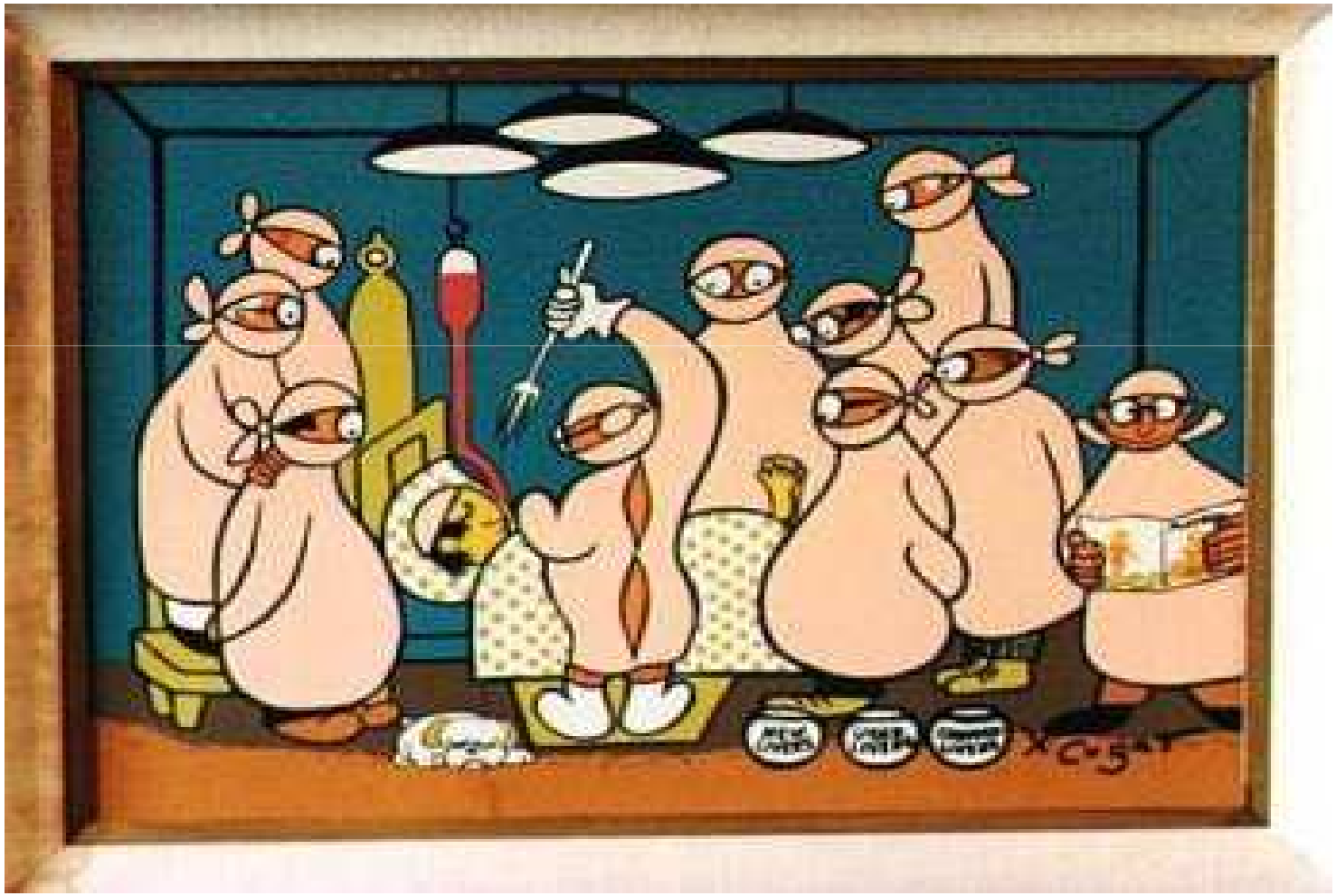
KING'S HEALTH PARTNERS

Liver transplant for HIV/ HCV should be excluded from transplantation in the UK

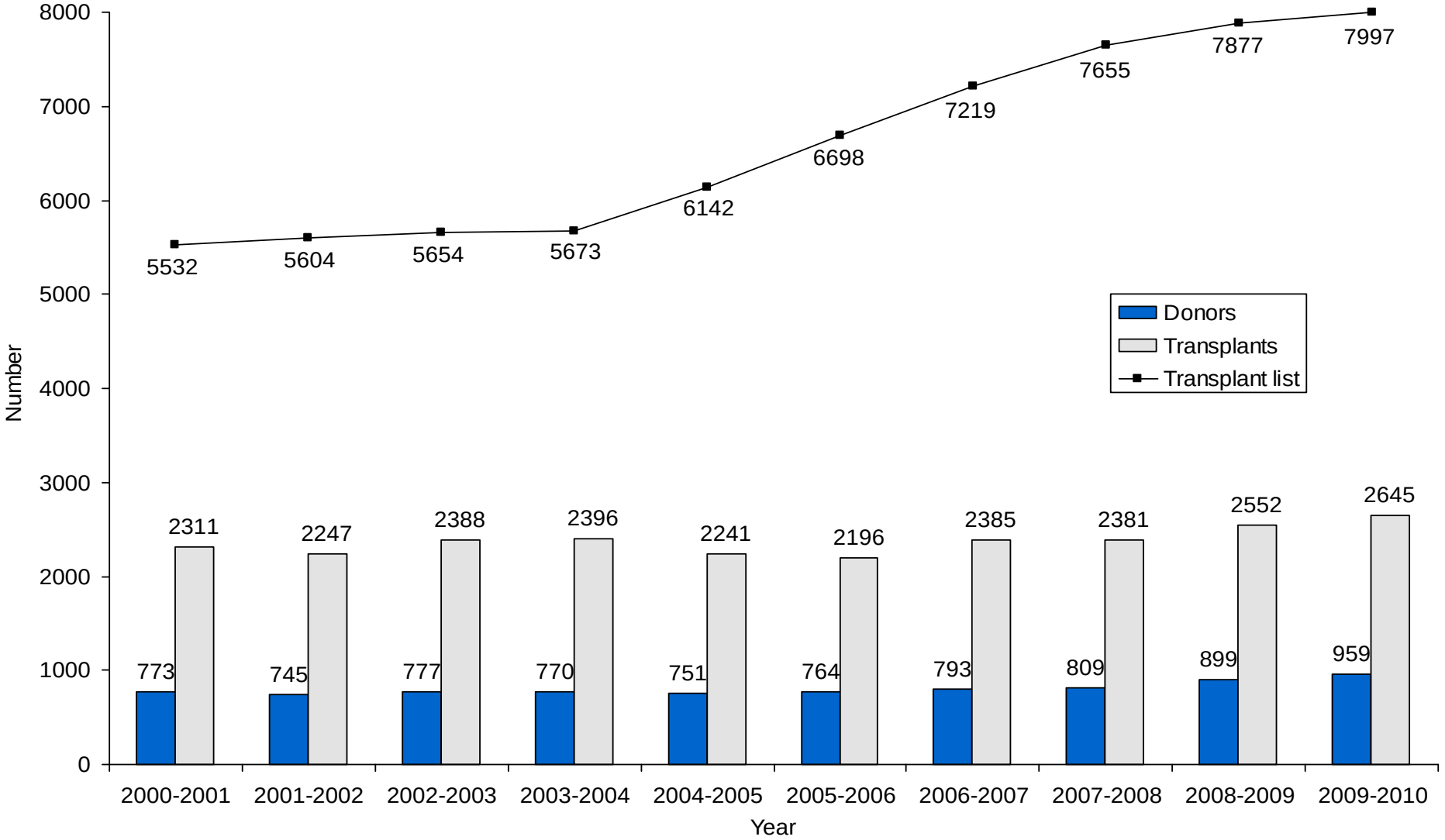
Prof John O'Grady
Institute of Liver Studies
Kings College Hospital

2012 BHIVA

Liver Transplantation
A tough environment in the UK



Number of deceased donors and transplants in the UK, 1 April 2000 - 31 March 2010, and patients on the active transplant lists at 31 March



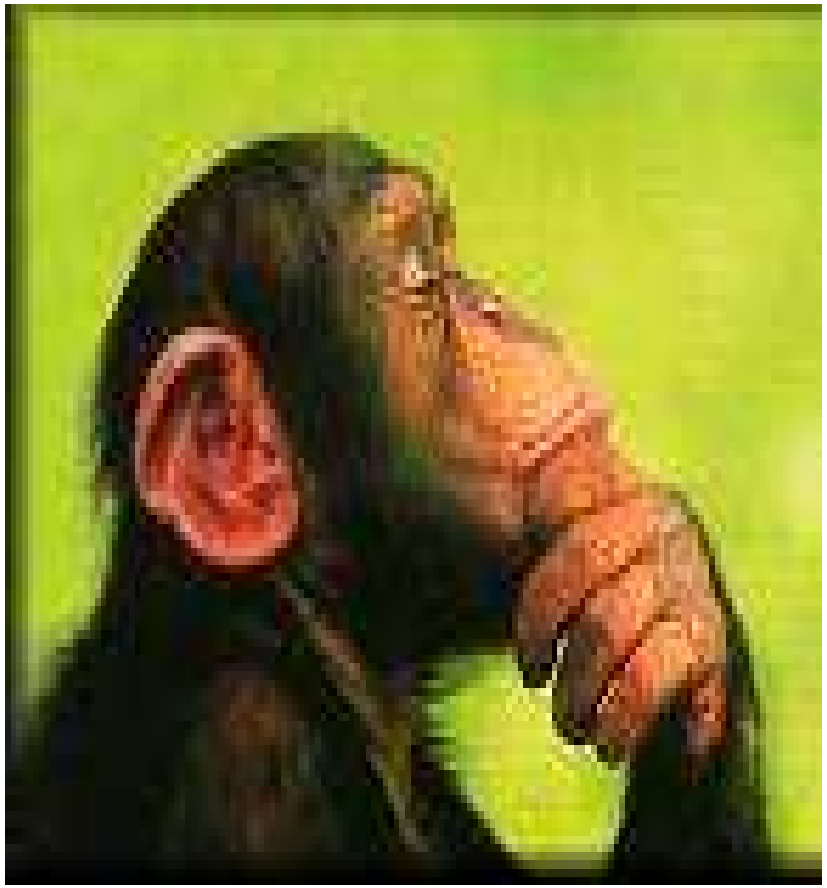
Source: Transplant activity in the UK, 2009-2010, NHS Blood and Transplant

HIV - LT the big questions?

In an era of donor shortage…

Utility/ benefit/ equity/ justice
Allocation
Designated units - resource?
Outcomes – benchmark?

Current evidence suggests outcomes in HIV/HCV are suboptimal…too much so…



HIV/HCV coinfection

HIV effect on HCV and vice versa - hepatoxicity

More rapid progression of fibrosis [1, 2, 3]

Complications appear clinically similar

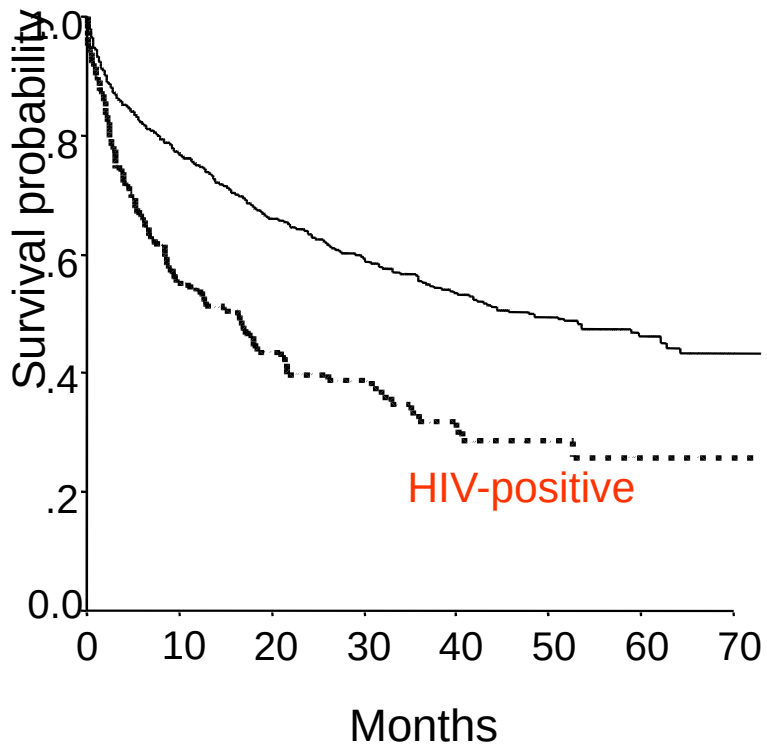
More rapid decompensation [4, 5, 6, 7]

Survival reduced after 1st decompensation [4, 5] [16 vs 48 months]

Main cause of death of HIV+ in ESLD

1. Benhamou, Y, Bochet, M et al. Liver Fibrosis in Human Immunodeficiency Virus and Hepatits C Virus Coinfected Patients Hepatology 1999; 30:1054-1058
2. Poynard, T, Mathurin, P et al. A comparison of fibrosis in chronic liver diseases Journal of Hepatology. 2003; 257-265
3. Puoti, M, Bonacini, M et al. Liver fibrosis progression is related to CD4 cell depletion in patients coinfected with Hepatitis C Virus and human immunodeficiency virus Journal of Infectious Diseases 2001; 183:134-7
4. Pineda, J A, Romero-Gómez, et al. Hepatology 2005; 41: 779-789
5. Merchante, N, Girón-González, J A et al. AIDS 2006; 20:49-57
6. Macías, J, Melguizo, I et al. Eur J Clin Microbiol Infect Dis 2002; 21:775-781
7. Blackard, J T, Sherman, K E. Journal of Viral Hepatitis 2008; 15:323-330

HIV coinfection Shortens the Survival: Should we allocate prioritisation to HIV?



Survival among HCV-infected individuals with and without HIV coinfection

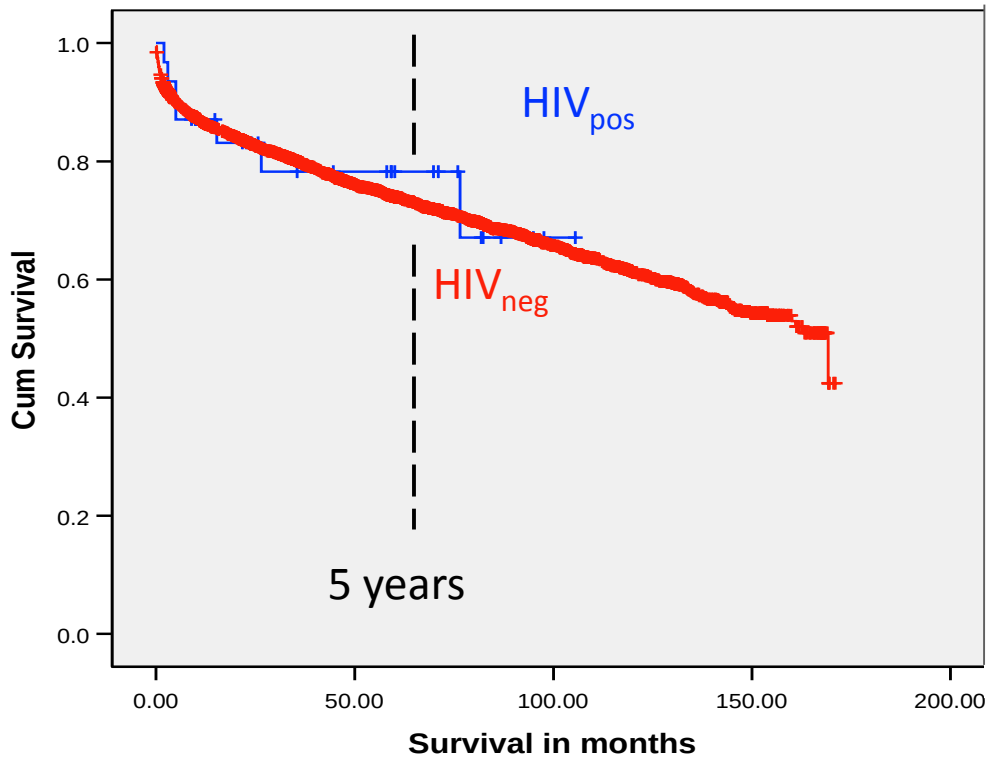
	1-year	2-years	5-years
HCV	74%	61%	44%
HCV/HIV	54%	40%	25%

No. at risk

HIV-positive	180	75	46	30	19	11	5	3

Pineda JA et al. Hepatology. 2005, 41:779-89

Survival rates between HIV_{pos} and HIV_{neg} patients in UK



HIV_{neg}

1 yr 86.5%

5 yr 74%

HIV_{pos}

1 yr 87.1%

5 yr 78%

Log-rank (p=0.84)

HIV_{pos} were younger compared to HIV_{neg} patients

(mean 42.2 years +/- 9 versus 51.2 +/- 11.06; p=0.001)

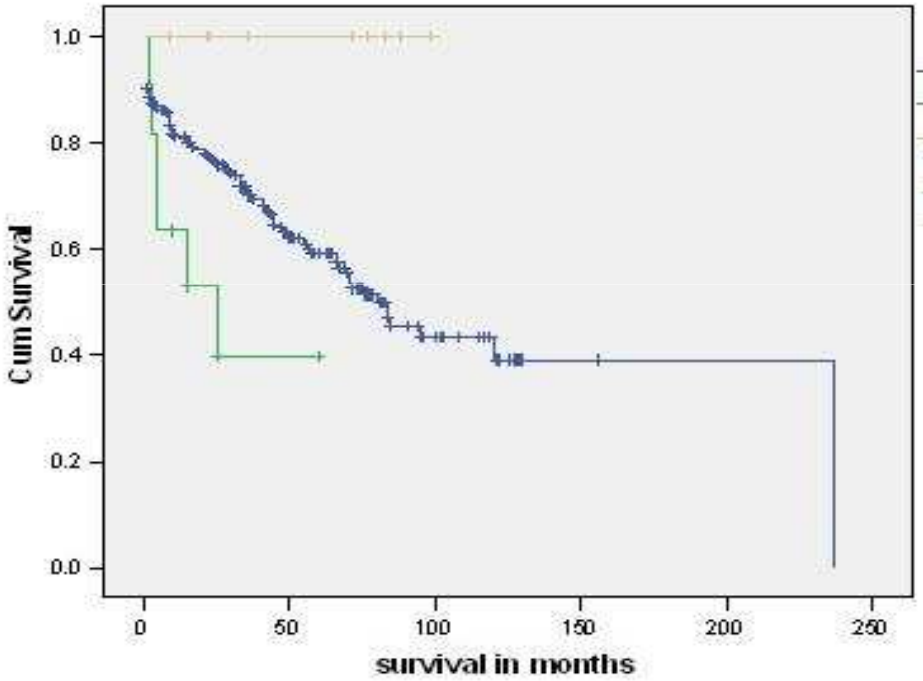
Why have I changed my opinion?

- 1:5 patients wait >2 years for a transplant
- HIV/HCV blood group O and B patients would need routine prioritisation
- ‘Expected progress’ has not materialised
- We fail to adhere to protocols

Editorial comment

- 3 year graft survival rate of 53% ……disappoints……fails to provide the basis for a sustainable practice……risks the emergence of calls for a moratorium on liver transplantation activity……because of the extent of patients with competing needs with better outcomes.

KINGS:HIV/HCV coinfected patients have ‘prohibitively’ poor survival at 5 years



N= 302

Remove cART naive patients

Survival rates at 1 and 5 years:

HIV+/HCV group = 64%

1/95 -5/08

1% of total activity

Younger

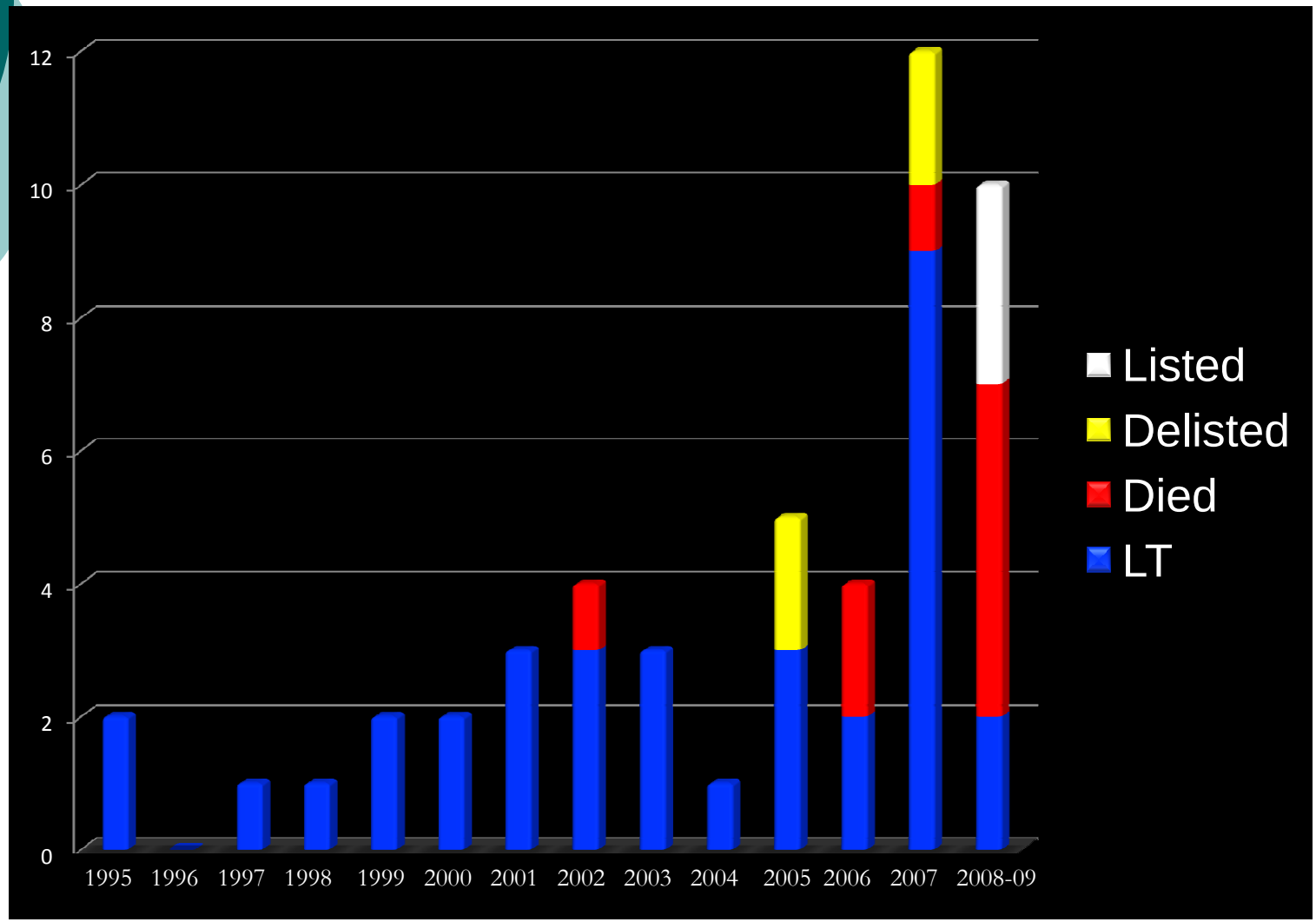
Sicker (MELD)

3 died HCV recurrence/ 2 sepsis

Survival rates at 1 and 5 years: HIV/HCV group (64% and 40%) versus 100% and 100% [HIV/other] versus 82% and 64% [HCV], logrank P=0.003

Joshi et al AASLD 2008 Abst6

LT in HIV+ve patients in UK:
Pts are referred late/are sicker (Kings data)



Outcomes for HIV/HCV post LT

Author	N	MELD#	Patient survival (%)^		
			1 year	3 years	5 years
Ragni et al, 2003	15		80	57	-
De Vera et al, 2007	27		67	56	33
Schreibman et al, 2007	15		73	73	-
Vennerecci et al, 2007	12*		88	58	-
Duclos-vallee et al, 2008	35		-	73	51
Joshi et al, 2008	11		64	-	40
Terrault et al, 2009	81		71	59	-

NIH study

- Prospective study of 89 HIV/HCV co-infected patients
- Comparison group of 235 HCV mono-infected patients
- Transplanted between 2003 and 2010

NIH study – patient characteristics

- Median CD4 count 283 cell/ml
- 88% HIV RNA negative
- 80% resumed antiviral therapy within 1 week of transplantation
- 42% received anti-HCV therapy (versus 24%)

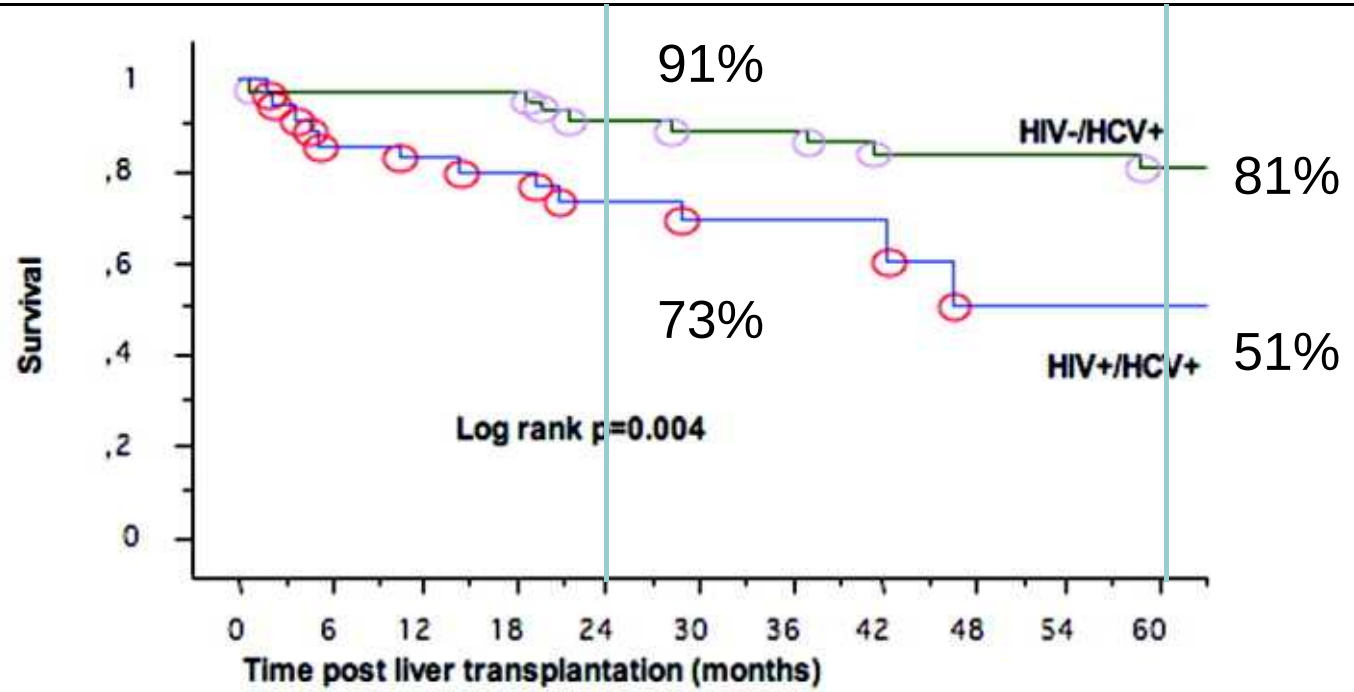
NIH study - outcomes

- 3 year patient survival rates 60% versus 79%
- 3 year graft survival rates 53% versus 74%
- Main cause of death was sepsis and multi-organ failure

NIH study – suggestions to improve outcomes

- 3 year survival 72% if patients with BMI <21 and patients with renal failure excluded
- Recommendation to allocate organs from donors <64 years who are HCV negative
- Optimise immunosuppression to prevent acute cellular rejection

Survival of HIV-HCV vs HCV mono
More aggressive fibrosis



HIV-/HCV+	44	43	43	40	38	34	25
HIV+/HCV+	35	33	33	19	12	5	4

The number of patients in each group is indicated

1999-2005

Duclos-Vallee JC et al 2007 Hepatology

Is there a way forward in the UK?

- Are we capable of becoming super-selective?
- Are we capable of sticking to protocols?
- Can we deliver optimal organs?
- Can be get access to new HCV anti-virals?

We can do better

LONDON. UK
DECEMBER 7 – 8 / 2012

LIVER DISEASES IN HIV INFECTION

SCIENTIFIC ORGANIZING COMMITTEE:
K. Agarwal, J. Rockstroh, F. Zoulim

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