



To B or Not to Be, That is the Question...

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DukeHealth

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Disclosures

We have no disclosures to report



The Case

-  66yo man with rapidly progressive IPF is listed for lung transplant
-  He was consented for a HepB/HepC positive organ under IRB protocol
-  LAS score: 55.8337



Bilateral lung transplant

Waitlist: <24hours prior to organ offer

Donor

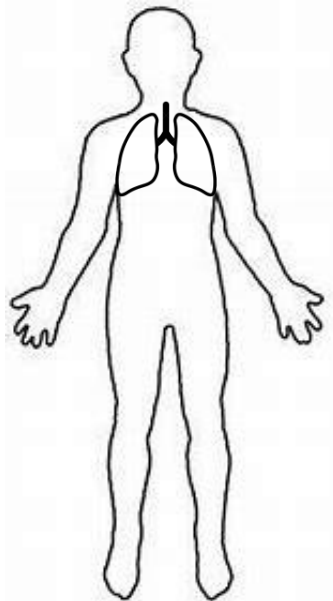
HBsAb -

HBsAg +

HBcAb -

Hep B NAT: 726,220 IU/mL

Hep C Ab -



Recipient

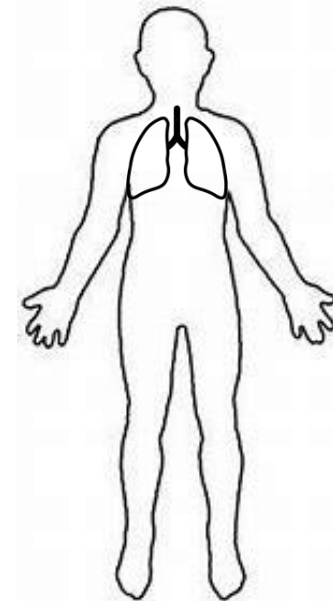
HBsAb 163 mIU/mL

HBsAg -

HBcAb -

Hep B NAT -

Hep C Ab -

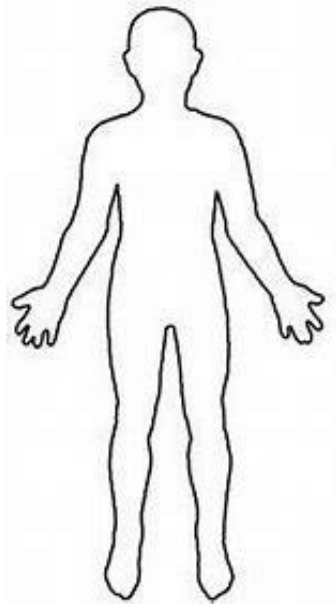




Bilateral lung transplant

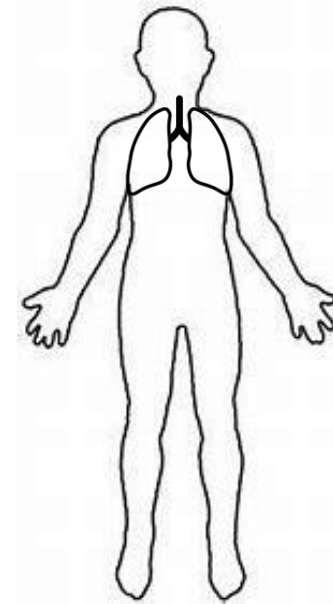
Donor

HBsAb -
HBsAg +
HBcAb -
Hep B NAT: 726,220 IU/mL
Hep C Ab -



Recipient

HBsAb 163 mIU/mL
HBsAg -
HBcAb -
Hep B NAT -
Hep C Ab -



Days from Transplant



HBIG

Entecavir



Organ transplantation from Hep B + donor

We queried OPTN database for all Hep B mismatched solid organ transplant episodes from July 1, 2017 through November 30, 2019

Positive Donor:
HBsAg + and/or Hep B NAT +



Negative Recipient:
HBsAg - and Hep B NAT -



Organ transplantation from Hep B + donor

Between July 1, 2017- November 30, 2019

281 living- and deceased-donor transplants involving a HepB + donor into a HBV- recipient.

194 deceased donor transplants from 98 different donors

- 56 PHS increased risk
- 19 HepC NAT +
- 1 HIV+

68 living-donor transplants

- 2 HepC NAT +



Hep B + Donation into Hep B - Recipient

July 1, 2017 through November 30, 2019

		Number of Transplants				
		Kidney*	Kidney- Pancreas	Liver*	Heart	Lung
Donor Data						
	HBsAg + Only	82	3	19	8	1
	HBV NAT + Only	76	0	57	3	3
	HBsAg + & HBV NAT +	18	0	7	3	1 [†]
Recipient Data						
	HBsAb + or HBcAb+	122	2	40	5	3
	HBsAb- & HBcAb-	69	1	43	9	2
	Unknown	2	0	0	0	0

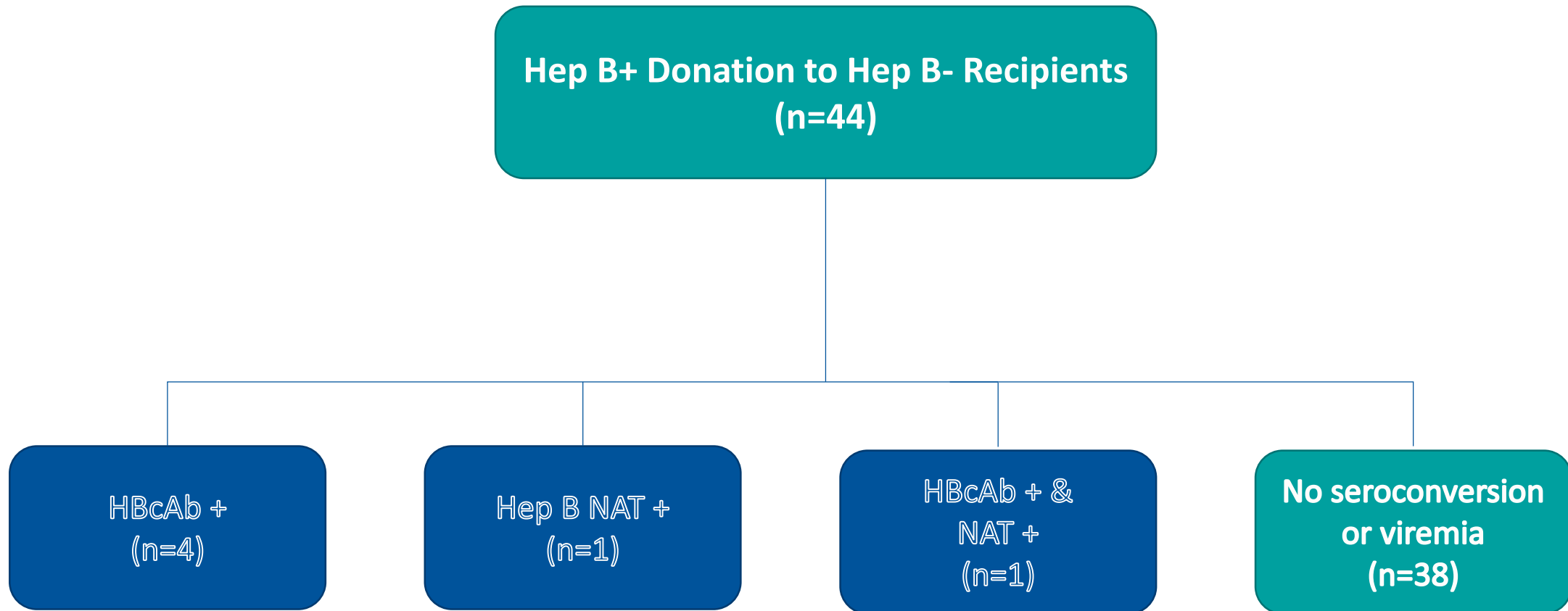
*Includes living and deceased donors; [†]Donor involved in the present case



Organ transplantation from Hep B + donor

Available outcomes data reported to OPTN on non-liver transplant recipients receiving PHS increased risk, deceased-donor transplants

Outcomes



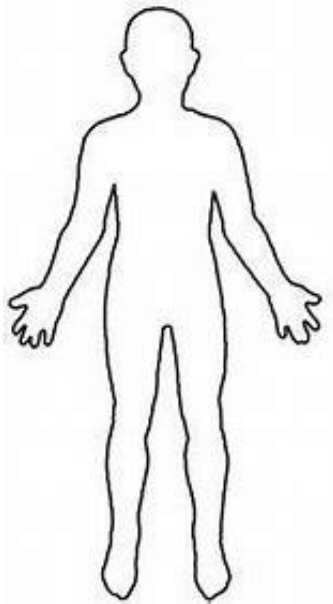


Back to the Case

Bilateral lung transplant

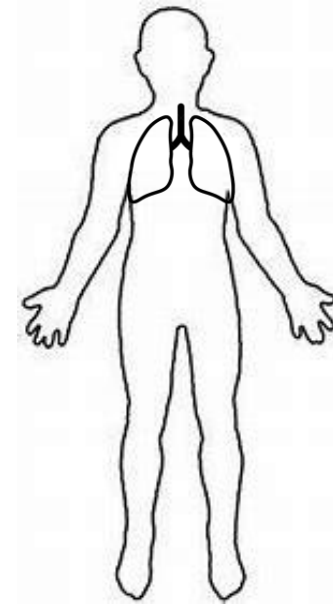
Donor

HBsAb -
HBsAg +
HBcAb -
Hep B NAT: 726,220 IU/mL
Hep C Ab -



Recipient: 60 days post-transplant

HBsAb >1000 mIU/mL
HBsAg -
HBcAb -
Hep B NAT -
Hep C Ab -





Conclusions

- 👉 Specific cases require an expanded donor pool
- 👉 HBV + thoracic donors may be safely transplanted into HBV - recipients
- 👉 Immunize potential lung transplant recipients early



Thank you