

 CARE

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 IDEXX
LABORATORIES

 ROYAL CANIN
a division of Mars Petcare

 visbiome|vet.

 PATTERSON
VETERINARY

 Animal Health

 CARE


Blood Banking
and
Blood Transfusions

WHO GETS WHAT? WHEN?
AND **T H E N** WHAT?

11 / 09 / 2019

Blood Banking and Blood Transfusions

- History
- CARE Blood Bank
- Transfusions (all the bloody details)
- The Future

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History

- Richard Lower, Physician
- Animal to Animal 1665
- Cervical artery to jugular vein



History

- Late 1980's First Veterinary Blood Bank
- 20 years ago survey
- 25 clinics contacted
- 'borrowed dogs'
- No blood typing
- Infectious screening



CARE Blood Bank

- 25 Blood Banks
- ___ units of PRBC yearly
- ___ veterinarian clinics
- PRBC (Packed Red Blood Cells)
- WB (Whole Blood)
- FFP (Fresh Frozen Plasma)
- Feline PRBC
- Feline WB
- Feline FFP



CARE Blood Bank

- Process



CARE Blood Bank

- Process
- Equipment



CARE Blood Bank

- Process
- Equipment



CARE Blood Bank

- Process
- Equipment
- Donor Screening



CARE Blood Bank

- Canine Donor Screen
- Blood Type DEA 1, 4, 5, 7
- Chemistry, CBC, Heartworm, UA
- Vector Borne Panel
- Feline Donor Screen
- Blood Type A or B
- Chemistry, CBC, UA, proBNP
- Vector Borne Panel



CARE Blood Bank

- Process
- Physical Process
- Draw Blood



PRESENTATION TITLE: Credit goes here

CARE Blood Bank



CARE Blood Bank



CARE Blood Bank

Video of plasma press



CARE Blood Bank



Transfusion

- Pale MM
- Laterally Recumbent
- Tachycardic



Transfusion: Who???

- Canine PCV 37% -55%
- Feline PCV 30% -45%
- Radiographs/AUS
- Trauma, Hemoabdomen, CKD, IMHA



Transfusion Component Therapy

- PRBC (Packed Red Blood Cells)
- WB (Whole Blood)
- FFP (Fresh Frozen Plasma)
- Platelet Rich Plasma (from Fresh Whole Blood- slow centrifuge)
- Cryoprecipitate (precipitated protein from FFP)



Transfusion Component Therapy

- | Pros | Cons |
|---|--|
| <ul style="list-style-type: none">• Benefits more than one patient• Better treatment target• Reduces adverse reaction | <ul style="list-style-type: none">• Expensive equipment• Time consuming |



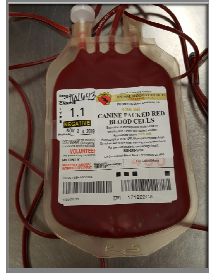
The Bloody Details Transfusions

- Warming PRBC *or not*
- Thawing FFP (*think meat thaw device*)
- Filter
- Pump or Gravity Drip



The Bloody Details Transfusions

Warming
takes time
can destroy cells
can always warm the patient



The Bloody Details Transfusions

Thawing FFP
Plasma Thawing Machine Expensive
Quick
Integrity of the Product



The Bloody Details Transfusions

Blood Filter Line
Hemonate Filter



PRESENTATION TITLE: Credit goes here

The Bloody Details Transfusions

IVF Pump

- Can damage cells –shorten cell life
- Baxter Pump Series
- Syringe Pump can damage cells

Gravity Drip

- Dedicated Nurse
- Catheter placement
- Can overload patient
- Extend cell life



The Bloody Details Transfusions



The Bloody Details Transfusions

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Gravity Drip

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The Bloody Details Transfusions

- Diphenhydramine
- Transfuse over 4 hours
- Start at half rate
- Monitor, Monitor, Monitor



The Bloody Details Transfusions

Reactions

- vomiting
- fever
- neurologic signs
- facial swelling



The Future

- Standards for Blood Banking
- Xenotransfusion



CARE Donors

JUPITER



LOKI



CARE Donors

HARVEY



BARRETT



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CARE Donors

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