Prototype App Review - Body Surface Area Dosage Calc

**Attendees:**

Caputo, Jim

Schweitzer, Derek

Selting, Kim

**General/Administrative**

1. Target dates
   1. June would be nice for an internal vet med meeting, but not essential
   2. October includes a much larger annual event
2. Pricing is TBD - perhaps $4.99

**Deliverables from Dr. Selting (updated 03/25/19)**

1. **Ranges for the drug Vinorelbine** 
   1. 15 mg/m2 ~~(dogs), range 15-18~~ - Does this 15/mg/m2 number represent desired defaults?
   2. 11.5 mg/m2 ~~(cats) range 9-12~~ - Does this 11.5/mg/m2 number represent desired defaults?
2. **Citations**
   1. ~~Vinorelbine: dogs:  JVIM (2004) 18:536-9~~
   2. ~~Vinorelbine: cats: JVIM (2013) 27:943-8~~
   3. ~~BSA (new): JVIM (2019) 33:792-9~~
   4. ~~BSA (old): JVIM (1998) 12:267-71 and Small Animal Clinical Oncology 5~~~~th~~~~ed (2013) pg 164.~~
3. **Any missing dosage formulas**
   1. Cats is the same as dogs but the factor is 10 instead of 10.1 - Is this for the "old BSA" calculation?
   2. ~~I’m going to pull more.  I just found a citation for a bunch of other species.  We will need to make sure that the data entry fields for each are accordingly greyed out when that parameter is not in a given equation.~~
4. **~~Provide any specific default values to use when a 'reset' button is applied~~**
   1. ~~Just set numbers back to zero - no special defaults~~
5. **An application icon from Vet Meds graphic designer for use in the app store**
   1. Has been requested
6. **Work with OTM on copyrights, profit sharing and any I.P. credits with U of MO**
   1. I think this is all moving forward appropriately
7. **Talk to UI Legal and OTM about any need to capture the settings that a vet used to calculate a dosage by date/time stamp to serve as a record in case vet uses the app and an animal dies from the dosage administered, to provide a record that the app produced an accurate dose recommendations based on the values entered by the vet**
   1. I have asked for someone to direct me to the correct contact for this

**02/21/10 - Mobile App Revisions from meeting with Dr. Selting**

1. **Spacing, sizing and formatting**
   1. ~~Make modifiable fields a little larger to improve usability on a phone~~
   2. ~~Remove one digit from the 'Weight' field~~ Had to impose weight limit of 4545.3 kg to avoid the conversion to lbs exceeding the new number of available digits.
   3. ~~Use the term "Other/override" in the 'Drug' field~~
   4. Add a separate 'lock' icon on the 'length' field
   5. ~~Right justify the 'Dose' numerical value~~ Other changes made this no longer needed
   6. ~~Shade the 'Low' and 'High' range to indicate they are protected fields~~
   7. ~~Add 'Reset' button that resets all fields to their default values provided by client~~
   8. Branding, credits, logos, links placement
      1. Place logos, credits, reference links, lengthy verbiage, board of trustees copyright, social media icons etc. is placed in an 'About' screen, similar to what's done in UI Dining, Illinois DVM, Chicago Water Walk, for consistency - Have a popup framed out for this info

1. **Functionality**
   1. ~~Make units of measure in the 'Dose' field match the one used in the 'Dosage' field~~
      1. ~~'Dosage' is the unit of measure prescribed based on body weight~~
      2. ~~'Dose' is the actual amount administered to the animal (patient)~~
   2. ~~When 'Old BSA' on(?), disable 'Length' field but do NOT zero it out~~
   3. ~~When both the old and new BSA toggles are off, zero out the 'Dose' field and recalculate the Dose when either is turned back on~~ - Dose is now inaccessible unless all calculation criteria are met including BSA calculation type selection.

**02/25/19 - Results from UX and Accessibility Review with QA and UX Design staff**

1. **SPECIES field**
   1. ~~Make this a list box so user can tell that choices are to be selected~~ - iOS Picker and Android Spinner
   2. ~~Radio buttons for each species was suggested but number of species may expand~~ – No native radio buttons on iOS. Using Modal Popup Picker for iOS. Will use Spinner for Android

1. **WEIGHT field**
   1. ~~Consolidate weight into one field that users can toggle between (from lbs to kg)~~ 2 fields per requirements, but only 1 field is active. The other is for reference only.
   2. ~~Provide a toggle so user can switch between lbs and kg units of measure~~
   3. ~~Automatically convert the weight value as the user toggles~~
   4. For the 'VoiceOver' accessiblility reader, one field is easier to read than individual fields for each digit. With separate fields, a user has to touch each digit to hear VoiceOver response

1. **BSA fields**
   1. ~~Consolidate 'OLD' and 'NEW' field into one field and enable the user to toggle between either with a radio button of "Old" and 'New"~~ – No native radio buttons on iOS. Consolidated into one Picker.
   2. ~~The white numbers on green text is hard to see. Come up with an accessibility friendly color -~~ Using different color scheme and validated with <https://webaim.org/resources/contrastchecker/>
   3. ~~Will all users just 'know' what 'OLD' and 'NEW' BSA means~~ – Added calculation citations dialog popup
   4. ~~The BSA labels are not intuitive to a non-user and needs to be, for anyone at any level of experience -~~ Changed to Picker/Spinner

1. **DOSE field**
   1. ~~Change the 'Dose' field to a 'Calculate Dose' button~~
   2. ~~A button makes the user think about the values they entered and be more engaged with what they are doing which calculating potentially lethal doses~~
   3. ~~Once the user presses the 'Calculate Dose' button, display a popup that summarizes the values they entered so the user really pays attention to what they entered. Popup would include the following information entered:~~
      1. ~~Species~~
      2. ~~Weight~~
      3. ~~Length~~
      4. ~~BSA~~
      5. ~~Drug~~
      6. ~~Dosage~~
      7. ~~Dose~~
      8. ~~An OK button executes dose calculation~~
      9. ~~A Cancel button cancels the calculation~~
      10. ~~Provide a link to legal disclaimer about legal liability, should the user agree proceed with administering a dosage and potential consequences. The verbiage for this disclaimer needs to come from UI Legal~~

1. **~~The 'lock' icons need replaced with something more intuitive for accessibility~~** 
   1. ~~These lock icons may confuse a user~~
   2. ~~Suggest making fields visibly disabled using color or removing the border so they look non-enterable~~
   3. ~~Instead of a 'lock' icon, provide either an 'edit' text label or perhaps a pencil icon that visually indicates to a user they can use it to edit the fields~~

1. **Branding**
   1. Instead of trying to integrate Illinois and Missouri colors into the app, how about just display the Illinois and Missouri logos at the bottom in perhaps some sort of ‘Brought to you by’ banner at the bottom of the screen

1. **~~Realign labels~~**
   1. ~~Left align the labels~~
   2. ~~Centered alignment should only be used in wedding invitations~~

Machine generated alternative text:
a 2:59 
Chemotherapy Dose Calculator O 
BODY SURFACE AREA 
SPECIES 
WEIGHT 
kg 
1b 
cm 
o 
7 
5 
Horse 
2 
4 
o 
o 
6 
CALCULATION TYPE 
LENGTH 
BSA 
DRUG O 
DOSAGE 
RESET 
o 
2 
BSA: 8.04 rn2 
DRUG CALCULATION 
o 
0 
0 
3 
9 
9 
_OVJ (Horse) 
o 
C CALCULATE 