

A Plug for Hair: The “long and short” of monitoring medication levels in hair



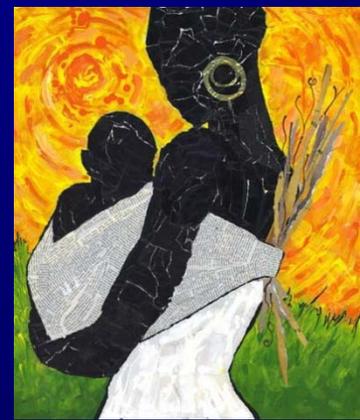
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SMARTT CAB Meeting

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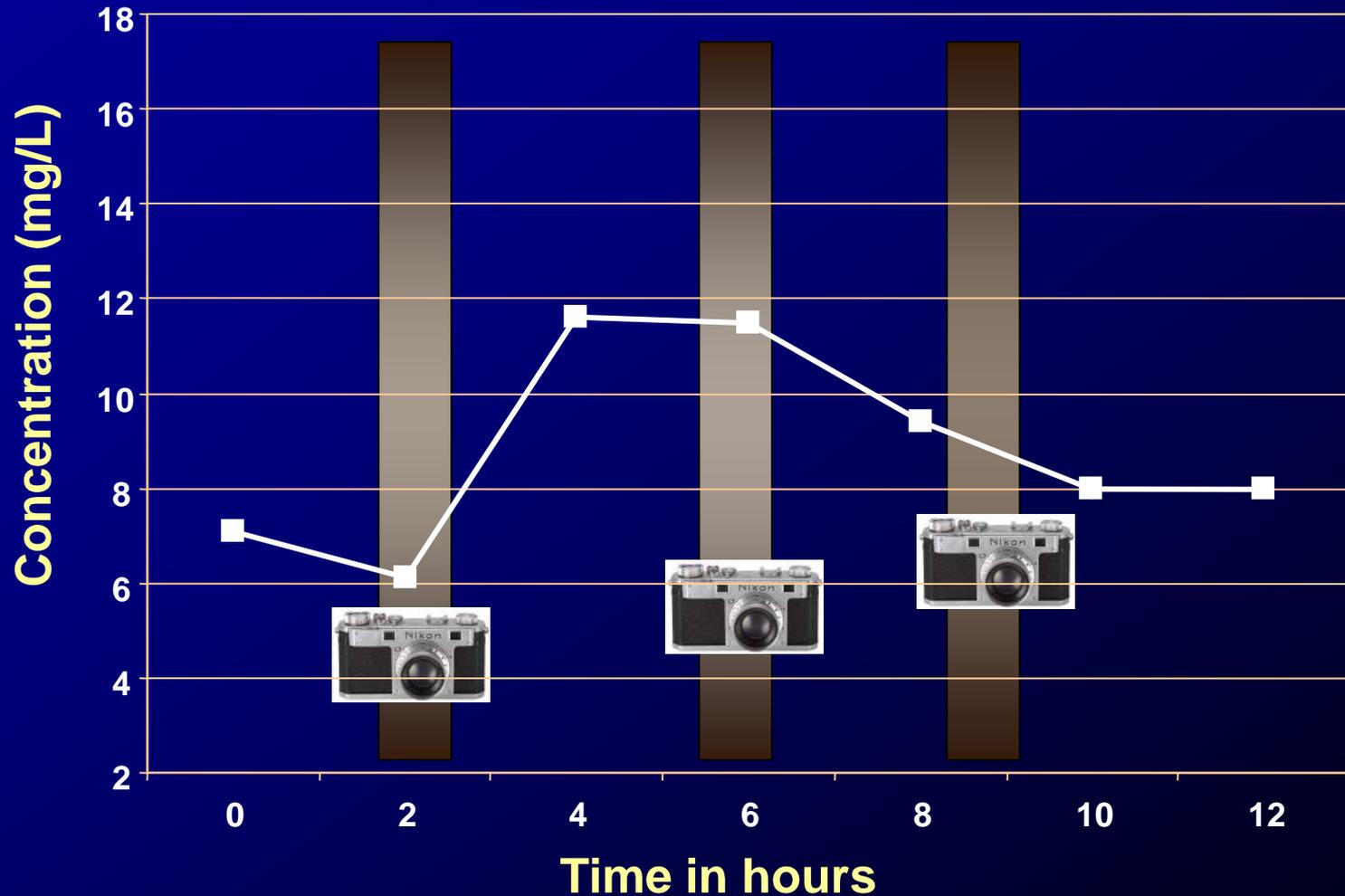
Why collect hair in the SMARTT study?



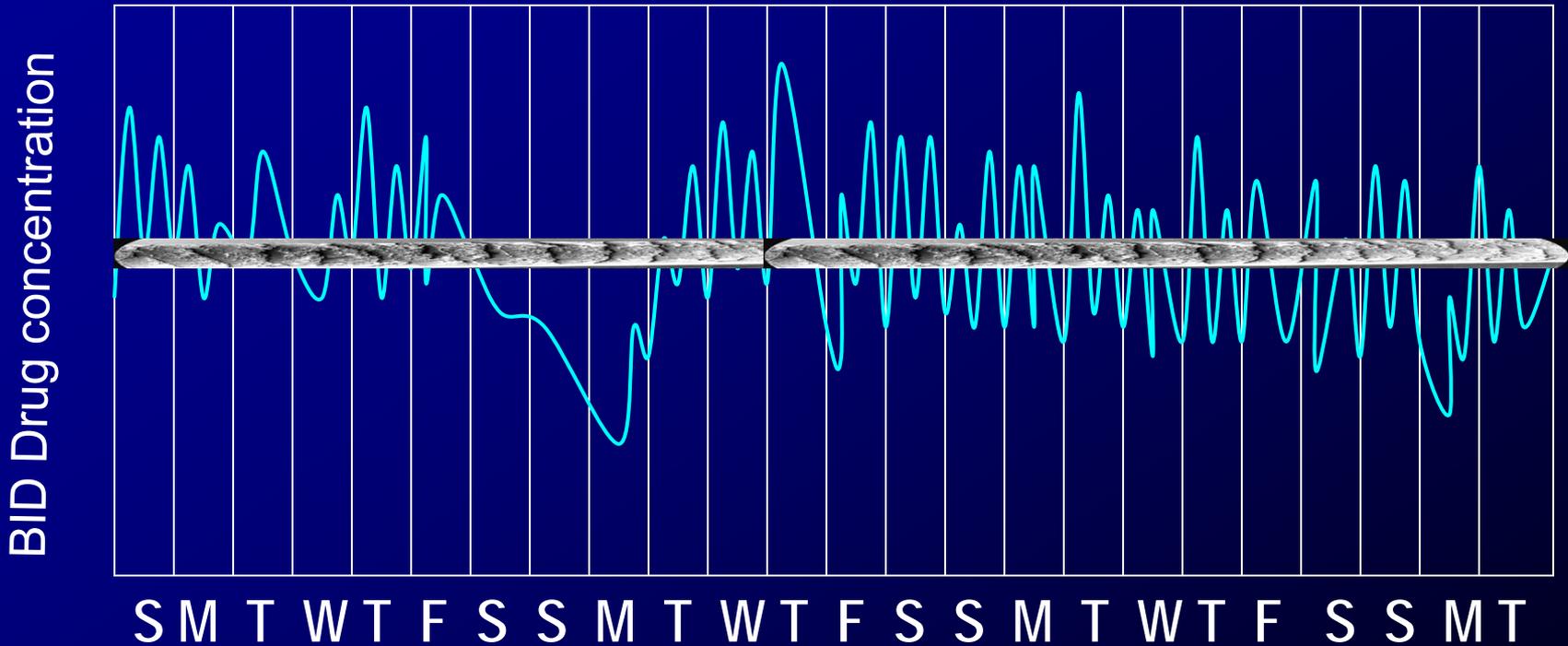
- Mothers in SMARTT are on antiretrovirals and pregnant
- No real way to know how much drug transfers from mother to baby during pregnancy
- Taking hair levels and measuring drug might help us understand how much drug transfers from mother to baby during pregnancy

When you look at a drug level in plasma, this just gives a “snapshot” of exposure

Plasma drug levels over 12 hours



How to measure how much drug mom is taking on average and passing on to baby?

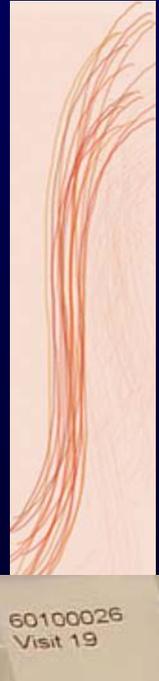


HAIR IT IS!!!!

Drug measured in a small sample of hair gives idea of average exposure over ~ 1 month



- Humans lose about 100 hairs per day from their scalp
- We collect 100 hair strands for our assays!
- Collect once from mother and baby at delivery



Easy six step process

- Takes about 2 minutes of time once staff gets a hang of it
- Tiny snip of hair cut from back of the head
- Painless – no need for blood draw!
- Sample can be stored at room temperature and is not hazardous (hair doesn't transmit HIV)

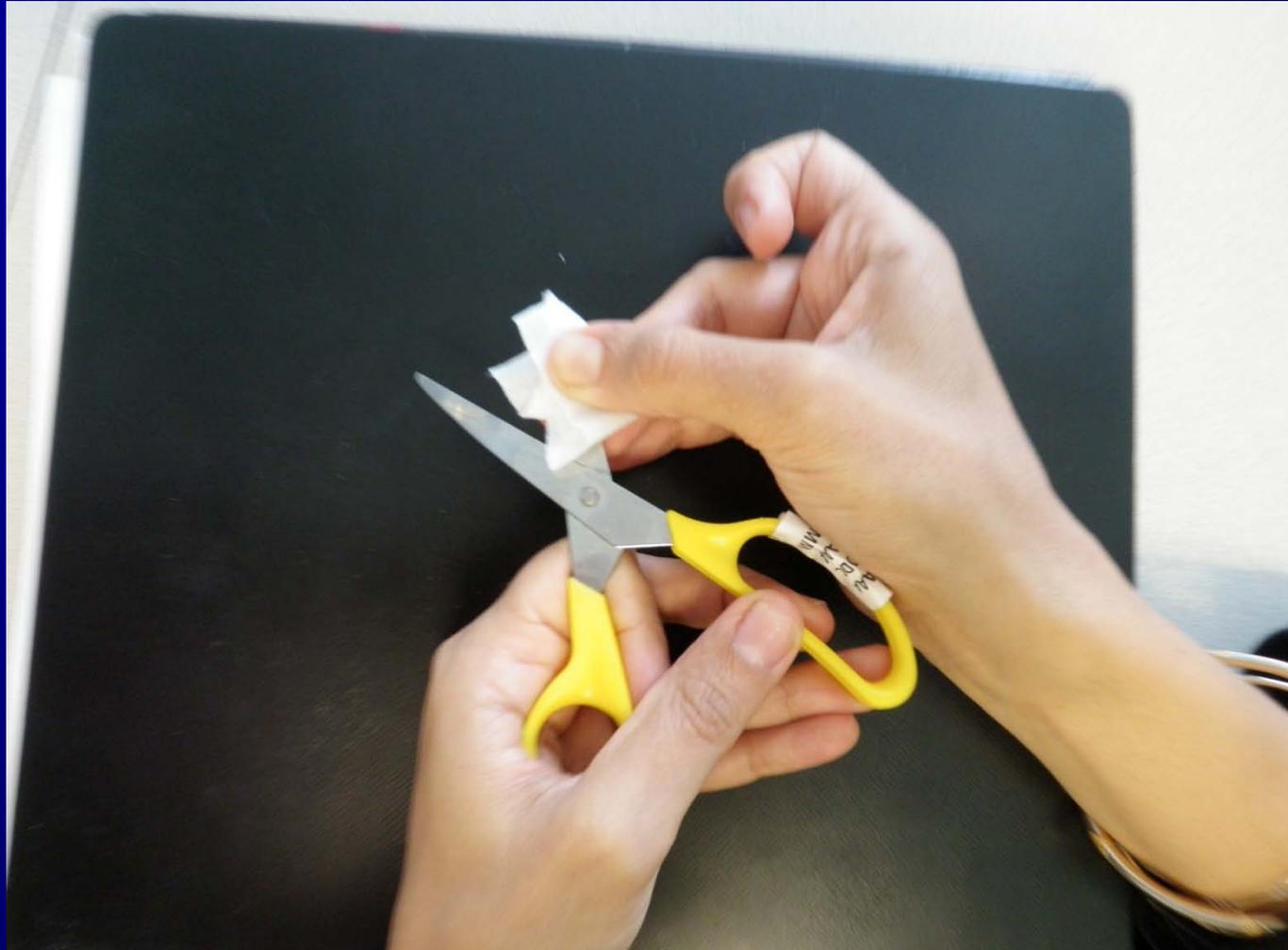


Materials required



- Small pair of scissors
- Alcohol wipes
- Hair collection “kit” sent to sites

Step 1: Wipe down scissors with alcohol pad



Step 2: Isolate thatch of hair from underneath the top layer of about 20 strands



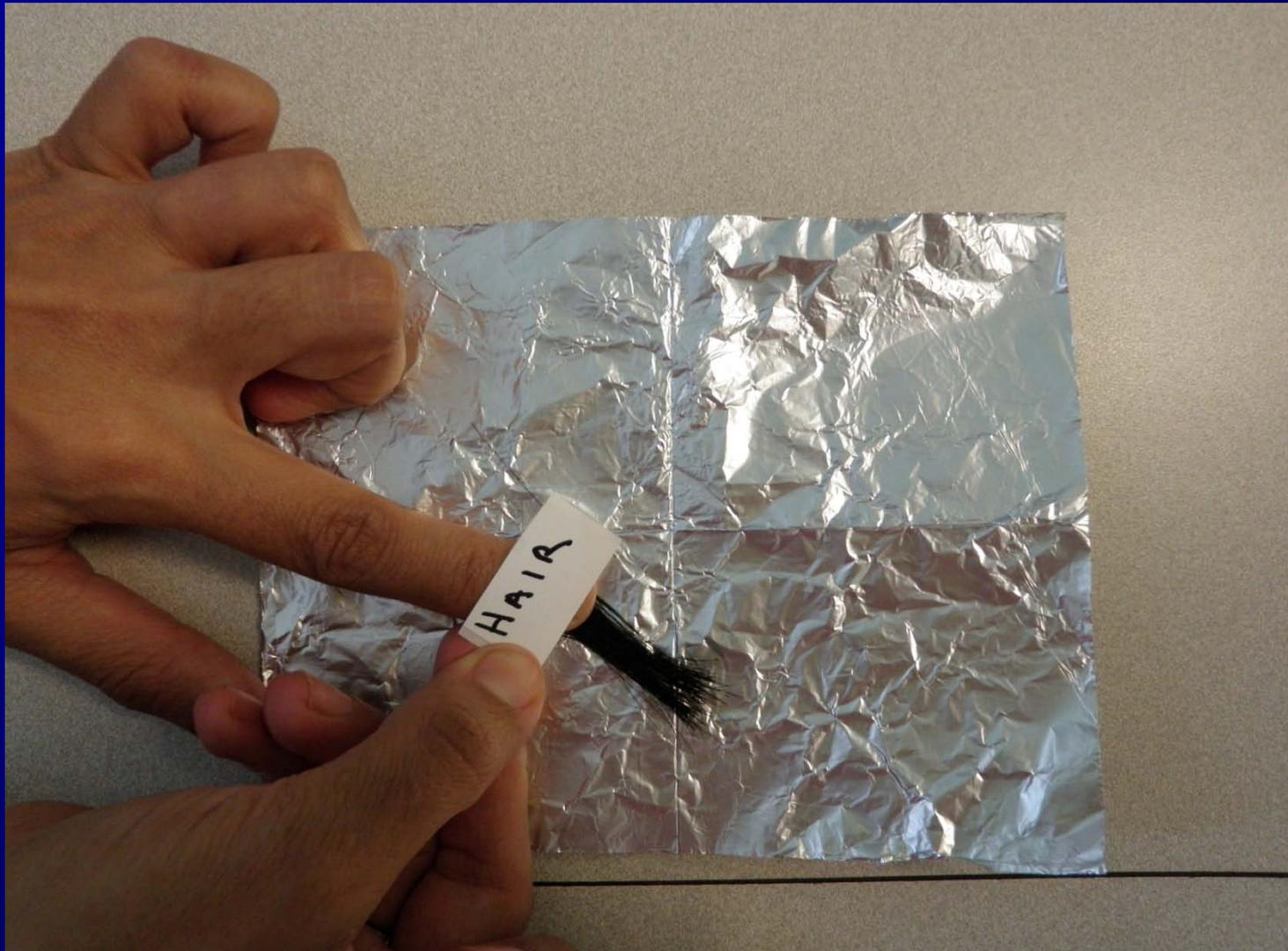
*Step 3: Cut the 20 strands of hair
keeping fingers firmly on part farthest
from scalp ("distal end")*



Step 4: Put hair down on tin foil with fingers over the far end



Step 5: Label distal end with patient label to be taped directly to tin foil



Step 6: Fold piece of tin foil over hair, place tin foil in plastic bag, seal and store at room temperature



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