

David Leon Rosenthal <rosenthal.dleon@gmail.com>

#### **KimCharts**

31 messages

### David Leon Rosenthal <rosenthal.dleon@gmail.com>

Wed, Jul 24, 2013 at 9:37 AM

To: Lee von Kraus < lee@haloneuro.com>

Hey Lee,

here are the pie charts (on excel scroll all way down--pages 3 and 6). Will try to upload more neatly when in office. These numbers match numbers for Lindberg.

-David

#### 2 attachments



KimData.svg



TdCSDatall.xlsx

43K

#### Lee von Kraus <lee@haloneuro.com>

Wed, Jul 24, 2013 at 10:06 AM

To: David Leon Rosenthal <rosenthal.dleon@gmail.com>

ok, and can you add the text for it to the google doc.

[Quoted text hidden]

#### Lee von Kraus <lee@haloneuro.com>

Wed, Jul 24, 2013 at 10:08 AM

To: David Leon Rosenthal <rosenthal.dleon@gmail.com>

also make a chart of the average of the kim and wu and send me the charts for that [Quoted text hidden]

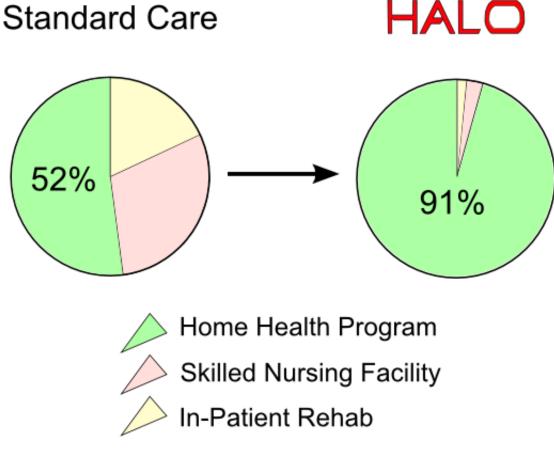
#### Lee von Kraus <lee@haloneuro.com>

Wed, Jul 24, 2013 at 10:28 AM

To: David Leon Rosenthal <rosenthal.dleon@gmail.com>

here is the prettied up new pie chart for kim

# Savings: \$10,393 per Patient



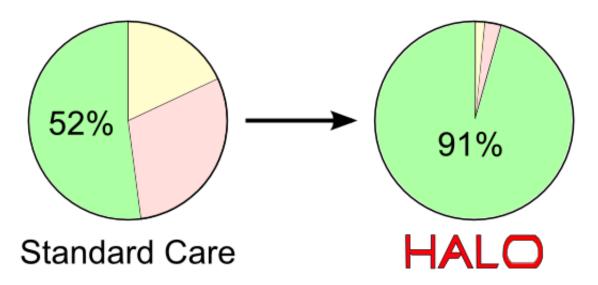
[Quoted text hidden]

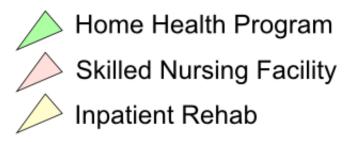
Lee von Kraus <lee@haloneuro.com>
To: David Leon Rosenthal <rosenthal.dleon@gmail.com>

here it is better

Wed, Jul 24, 2013 at 10:39 AM

# Savings: \$10,393 per Patient





[Quoted text hidden]

David Leon Rosenthal <rosenthal.dleon@gmail.com> To: Lee von Kraus <lee@haloneuro.com>

Wed, Jul 24, 2013 at 10:45 AM

Hate to do this again, but there was an error of about 3 percentage points. I used .69 instead of .63 as the proportion of non-CST damage. Updated xls attached. [Quoted text hidden]



TdCSDataII.xlsx 43K

Lee von Kraus <lee@haloneuro.com>

Wed, Jul 24, 2013 at 11:01 AM

To: David Leon Rosenthal <rosenthal.dleon@gmail.com>

text for lindenberg looks good and comes up with a value very close to the kim paper. So we'll use the kim and linderberge paper for the estimate.

#### things to do by 1pm:

- make a pie chart of average values from kim and lindenberg and give me hh% and \$savings values
- get the text for kim into the google doc

[Quoted text hidden]

David Leon Rosenthal <rosenthal.dleon@gmail.com>

Wed, Jul 24, 2013 at 11:05 AM

Text for Kim is in google doc. Hate to do this again but found another error. Cuts savings by about \$300.

-David

[Quoted text hidden]

Lee von Kraus <lee@haloneuro.com>

Wed, Jul 24, 2013 at 11:09 AM

To: David Leon Rosenthal <rosenthal.dleon@gmail.com>

any change in pie chart or just subtract 300 from savings?

[Quoted text hidden]

David Leon Rosenthal <rosenthal.dleon@gmail.com>

Wed, Jul 24, 2013 at 11:22 AM

To: Lee von Kraus <lee@haloneuro.com>

Looking at costs over 90 days saves additional 200 though

[Quoted text hidden]

Lee von Kraus <lee@haloneuro.com>

Wed, Jul 24, 2013 at 11:27 AM

To: David Leon Rosenthal <rosenthal.dleon@gmail.com>

ok, get me a pie chart with the avg of lindenberg and kim asap

[Quoted text hidden]

Lee von Kraus <lee@haloneuro.com>

Wed, Jul 24, 2013 at 11:28 AM

To: David Leon Rosenthal <rosenthal.dleon@gmail.com>

and give me hh% and \$savings values

[Quoted text hidden]

David Leon Rosenthal <rosenthal.dleon@gmail.com>

Wed, Jul 24, 2013 at 11:39 AM

To: Lee von Kraus <lee@haloneuro.com>

Ok here's everything: averaged values at the bottom. Let me know if you'd prefer inkscape file. Corrected for errors. When I wrote 300 was typo--add order of mag--but saved another 2000 in looking at 90-day values.

-David

[Quoted text hidden]



#### TdCSDataIII.xlsx

46K

#### 

Wed, Jul 24, 2013 at 11:41 AM

To: Lee von Kraus <lee@haloneuro.com>

Changed google doc for Lindberg paper to get more conservative value--now within a few hundred dollars of BI estimates. Booyah.

[Quoted text hidden]

Lee von Kraus <lee@haloneuro.com>

Wed, Jul 24, 2013 at 11:50 AM

To: David Leon Rosenthal <rosenthal.dleon@gmail.com>

dude, that excel file makes no fucking sense, send me something that makes sense.

I want to see pie chart of kim, pie chart of lindenberg, then show me their average. Send just those three charts. clearly labeled with hh and savings for each. You keep changing the damn values every ten seconds, I better

see the 10,379 and 10,756 in there somewhere unless those were wrong too

[Quoted text hidden]

#### David Leon Rosenthal <rosenthal.dleon@gmail.com>

To: Lee von Kraus <lee@haloneuro.com>

Wed, Jul 24, 2013 at 12:43 PM

Here's a better chart.

-David

[Quoted text hidden]



## KimandLindenberg.xlsx

41K

#### David Leon Rosenthal <rosenthal.dleon@gmail.com>

Wed, Jul 24, 2013 at 12:45 PM

To: Lee von Kraus <lee@haloneuro.com>

The tDCS pie chart is derived from only Kim as, at this point, I do not have a technique to put the Lindenberg data in terms of discharge outcome.

-David

[Quoted text hidden]

#### Lee von Kraus <lee@haloneuro.com>

Wed, Jul 24, 2013 at 1:38 PM

To: David Leon Rosenthal <rosenthal.dleon@gmail.com>

could you make a bar graph with one bar showing status quo recovery time and the other bar showing tDCS recovery time based on the lindenberg paper?

[Quoted text hidden]

# David Leon Rosenthal <rosenthal.dleon@gmail.com>

Wed, Jul 24, 2013 at 1:46 PM

To: Lee von Kraus <lee@haloneuro.com>

This bar graph uses the average number of days spent in post-acute care. The cost estimate in the last document I sent you is based on all service costs over 90 days (i.e. reducing 90 days to 46.8 days)

-David

[Quoted text hidden]



### RecoveryTimeTdcs.xlsx

33K

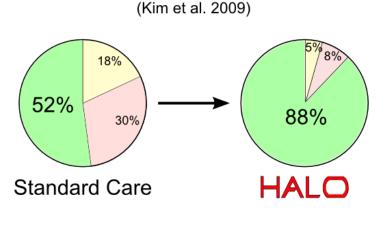
#### Lee von Kraus <lee@haloneuro.com>

Wed, Jul 24, 2013 at 2:15 PM

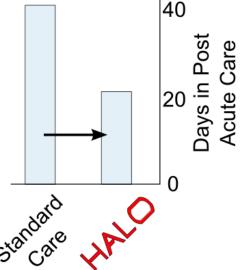
To: David Leon Rosenthal <rosenthal.dleon@gmail.com>

ok, here's the new figure. The Kim paper is 2009 right?

# Estimated Savings: \$7,528 per Patient



(Lindenberg et al. 2010)



Home Health Program

Skilled Nursing Facility

Inpatient Rehab

[Quoted text hidden]

David Leon Rosenthal com>
Tay Leon year (frequentless @belenaurs come)

To: Lee von Kraus <lee@haloneuro.com>

Wed, Jul 24, 2013 at 2:27 PM

Awesome. Sorry again for the sloppiness.

Kim paper date: I have 2010 (Am J Phys Med Rehabil 2010;89:879–886).

-David

[Quoted text hidden]

# David Leon Rosenthal <rosenthal.dleon@gmail.com>

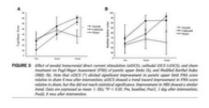
To: Lee von Kraus <lee@haloneuro.com>

Wed, Jul 24, 2013 at 2:36 PM

Doesn't explicitly say in the paper whether the effect on BI is statistically significant and the error bars are hard to read. What do you think? (see attachment).

-David

[Quoted text hidden]



BI\_KIM.png 372K

Lee von Kraus <lee@haloneuro.com>

To: David Leon Rosenthal <rosenthal.dleon@gmail.com>

Wed, Jul 24, 2013 at 2:42 PM

in the abstract they say:

"At 6-mo follow-up, cathodal transcranial direct current stimulation led to a greater improvement in Fugl-Meyer Assessment than the sham procedure (P < 0.05)"

p<0.05 is statistically significant

[Quoted text hidden]

#### Lee von Kraus <lee@haloneuro.com>

To: David Leon Rosenthal <rosenthal.dleon@gmail.com>

Wed, Jul 24, 2013 at 2:43 PM

can you send me the pdf of that article though, I don't have it

[Quoted text hidden]

#### David Leon Rosenthal <rosenthal.dleon@gmail.com>

To: Lee von Kraus <lee@haloneuro.com>

Wed, Jul 24, 2013 at 2:57 PM

Here it is.

-David

[Quoted text hidden]



#### Lee von Kraus <lee@haloneuro.com>

Wed, Jul 24, 2013 at 3:11 PM

To: David Leon Rosenthal <rosenthal.dleon@gmail.com>

ok, I put your text with the figure into a 1 page 'whitepaper' for the insurance people, you can see it here.

Good work Dave, hopefully you learned a lot from it if nothing else :)

Lee

[Quoted text hidden]

#### Lee von Kraus <lee@haloneuro.com>

Wed, Jul 24, 2013 at 3:21 PM

To: David Leon Rosenthal <rosenthal.dleon@gmail.com>

next project is to look into the costs of individual treatments that currently are used (i.e. look up the insurance codes for each treatment). Then we'll come up with an estimated cost of tDCS and just compare the total cost of tDCS (cost of 1 use \* 5) vs. the total cost of other treatments (e.g. 20 days of physical therapy, etc)

[Quoted text hidden]

#### Lee von Kraus <lee@haloneuro.com>

To: David Leon Rosenthal <rosenthal.dleon@gmail.com>

Wed, Jul 24, 2013 at 3:38 PM

yeah, looking through the kim pdf they say fugl meyer is significant but barthel isn't. Anyway, we'll leave everything as it is for now. work on the next step (in previous email), and we can get back to the kim issue later [Quoted text hidden]

# David Leon Rosenthal <rosenthal.dleon@gmail.com>

To: Lee von Kraus < lee@haloneuro.com>

Wed, Jul 24, 2013 at 3:43 PM

so sorry for all the mistakes.

-David

[Quoted text hidden]

**David Leon Rosenthal** com>
Draft To: Lee von Kraus 
clee@haloneuro.com>

Wed, Jul 24, 2013 at 4:11 PM

[Quoted text hidden]

#### Lee von Kraus <lee@haloneuro.com>

Wed, Jul 24, 2013 at 4:39 PM

To: David Leon Rosenthal <rosenthal.dleon@gmail.com>

hey in the text for lindenberg you say

"Lindenberg (2010) et al. found that bilateral stimulation improved motor test (Wolf, Fugl-Meyer) scores by an average of 432.6%"

the 432.6% is the percent that tDCS was better than sham, not the % that it was better than baseline. So the tDCS only improved motor tests scores by 20% (as shown on the y axis of the figure 2). If the sham was infinitely small but still not 0 then the % improvement in the way you calculated it would be infinite,... doesn't make much sense does it

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