Outlook

Re: [SCS] Greetings from your Statistical Consultant

From Guda, Sumeeth Krishna <sguda@purdue.edu>
Date Thu 3/20/2025 1:05 PM
To Kiel, Patrick J <pkiel@purdue.edu>; Preston, Michael A. <mapreston@purdue.edu>

I concur with the results. Use the reduced stepwise model.

-Sumeeth

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From: Kiel, Patrick J <pkiel@purdue.edu>
Sent: Thursday, March 20, 2025 5:51:43 AM
To: Guda, Sumeeth Krishna <sguda@purdue.edu>; Preston, Michael A. <mapreston@purdue.edu>
Subject: Re: [SCS] Greetings from your Statistical Consultant

Thanks, it looks good on my end:

The results of the **ANOVA** for Targeted therapy receipt comparing the full and reduced models indicate the following:

- **Model 1** (reduced model): `Targeted ~ disability + education_college + employment_status` has a residual deviance of 296.34 with 225 degrees of freedom.
- **Model 2** (full model): `Targeted ~ disability + education_college + employment_status + marital_status_group + income` has a residual deviance of 294.60 with 223 degrees of freedom.
- The **Deviance** statistic is 1.7452, and the **p-value** is 0.4179.

The results of the **Analysis of Deviance** show the following on Biomarker testing:

- **Model 1**: `biomarker_testing_binary ~ disability + employment_status`
    - Residual Degrees of Freedom (Df): 226
    - Residual Deviance: 186.25
- **Model 2**: `biomarker_testing_binary ~ disability + education_college + employment_status + marital_status_group + income`
    - Residual Degrees of Freedom (Df): 223
    - Residual Deviance: 185.07

The deviance difference between Model 1 and Model 2 is 1.1812, and the p-value (Pr(>Chi)) is **0.7575**.

I will stick with the reduced models on both!
-patrick

Patrick J. Kiel, PharmD, MBA, BCOP, FHOPA
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From: Guda, Sumeeth Krishna <sguda@purdue.edu>
Sent: Tuesday, March 18, 2025 9:46 PM
To: Kiel, Patrick J <pkiel@purdue.edu>; Preston, Michael A. <mapreston@purdue.edu>
Subject: Re: [SCS] Greetings from your Statistical Consultant

Hello Patrick,

I just read through your document, and I think you are on the right page as your procedures for creating and model selecting through your logistic regression model sound logical. My only suggestion is that in addition to checking the models against AIC, I strongly recommend running an anova on your model to verify that the deviance between the full and reduced models is low.

Including something like:

anova(model_red, model_full, test = "Chisq")

Into your code will give an analysis of deviance table (This will be analysis of deviance compared to a regular anova since you specified these models are based on the binomial distribution), and using the P value, you can determine whether to reject the null hypothesis in
{H0: Reduced model is better, H1: Full model is better}.

Overall, I think you are going in the right direction, but let me know if you have any questions, I'd be happy to clarify.

Best,

Sumeeth Guda

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From: Kiel, Patrick J <pkiel@purdue.edu>
Sent: Friday, March 14, 2025 12:15 PM
To: Guda, Sumeeth Krishna <sguda@purdue.edu>; Preston, Michael A. <mapreston@purdue.edu>
Subject: Re: [SCS] Greetings from your Statistical Consultant

Awesome & thank you!
I updated the word document to add the R Code if needed!
-pk

Patrick J. Kiel, PharmD, MBA, BCOP, FHOPA
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From: Guda, Sumeeth Krishna <sguda@purdue.edu>
Sent: Friday, March 14, 2025 10:06 AM
To: Kiel, Patrick J <pkiel@purdue.edu>; Preston, Michael A. <mapreston@purdue.edu>
Subject: Re: [SCS] Greetings from your Statistical Consultant

Sure, I can do the review

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From: Kiel, Patrick J <pkiel@purdue.edu>
Sent: Friday, March 14, 2025 8:00:19 AM
To: Guda, Sumeeth Krishna <sguda@purdue.edu>; Preston, Michael A. <mapreston@purdue.edu>
Subject: Re: [SCS] Greetings from your Statistical Consultant

Happy Friday Sumeeth,
Per our meeting the other week I was able to update my dataset and conduct the step-wise logistic multivariable on those receiving targeted therapy w/ social determinates of health & biomarker testing w/ social determinates of health. I wrote out my process and methods with results (Forest Plot) on the attached word document.

Would you be willing/have time to review by March 21st to make sure that I am on the right page?
Thanks for your help!
-patrick

Patrick J. Kiel, PharmD, MBA, BCOP, FHOPA
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From: Guda, Sumeeth Krishna <sguda@purdue.edu>
Sent: Friday, February 21, 2025 4:57 PM
To: Kiel, Patrick J <pkiel@purdue.edu>
Cc: Preston, Michael A. <mapreston@purdue.edu>
Subject: Re: [SCS] Greetings from your Statistical Consultant

I will send the zoom link

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From: Kiel, Patrick J <pkiel@purdue.edu>
Sent: Friday, February 21, 2025 4:53:21 PM
To: Guda, Sumeeth Krishna <sguda@purdue.edu>
Cc: Preston, Michael A. <mapreston@purdue.edu>
Subject: Re: [SCS] Greetings from your Statistical Consultant

Perfect & Thank you!
Are you sending the zoom link or should I for March 4 @ 9:30?
-patrick

Patrick J. Kiel, PharmD, MBA, BCOP, FHOPA
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From: Guda, Sumeeth Krishna <sguda@purdue.edu>
Sent: Friday, February 21, 2025 4:38 PM
To: Kiel, Patrick J <pkiel@purdue.edu>
Cc: Preston, Michael A. <mapreston@purdue.edu>
Subject: Re: [SCS] Greetings from your Statistical Consultant

Hello Dr. Kiel and Dr. Preston,

I got word from the SCS directors. The meeting arrangement would be as follows:

Day: 3/4/25 (Tuesday)
Time: 9:30 AM
Medium: Zoom

Does this arrangement work?

Best,

Sumeeth

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From: Kiel, Patrick J <pkiel@purdue.edu>
Sent: Friday, February 21, 2025 3:09:47 PM
To: Guda, Sumeeth Krishna <sguda@purdue.edu>
Cc: Preston, Michael A. <mapreston@purdue.edu>
Subject: Re: [SCS] Greetings from your Statistical Consultant

Good afternoon Sumeeth,
Can we prioritize 3/4 @ 9:30 > 3/5 @ 3:30? If we could do virtually that would be best.
Thanks for your help,
-patrick

Patrick J. Kiel, PharmD, MBA, BCOP, FHOPA
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From: Guda, Sumeeth Krishna <sguda@purdue.edu>
Sent: Thursday, February 20, 2025 11:59 AM
To: Kiel, Patrick J <pkiel@purdue.edu>
Subject: [SCS] Greetings from your Statistical Consultant

Hello Patrick,

I am Sumeeth Guda from the Statistical Consulting Service (SCS). During this semester, I will be serving as your consultant. When you need some help, feel free to contact me via this email address: sguda@purdue.edu.

Since you are our new client, we shall set up an initial meeting first. It would be an occasion where the new client (you), the SCS director, your advisor, and the consultant (me) sit together to discuss the project details. During the meeting, you would briefly introduce the project. The SCS director and the consultant may ask some questions for a better understanding. In the end, we would formulate a plan of conducting the service.

This one-hour meeting can either be held in-person or virtually. If you want to meet in-person, the meeting will be held in Room G162 of the Math Building. If you want to meet virtually, the meeting will be held virtually through Zoom, Webex, or Microsoft Teams.

The available time slots are as follows:
2/26 (Wednesday): 3:30 PM
3/04 (Tuesday): 9:30 AM
3/05 (Wednesday): 9:30 AM, 11:30 AM, 3:30 PM

Please email me your convenient slots that work for both you and your advisor (I would really appreciate it if you could pick several available slots with your preference rank). I would then arrange the meeting with our SCS director.

Sumeeth Guda

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