Knowledge Sharing for Better Quality

Live-Webinar Series

Eclipse TPS

Organizer:

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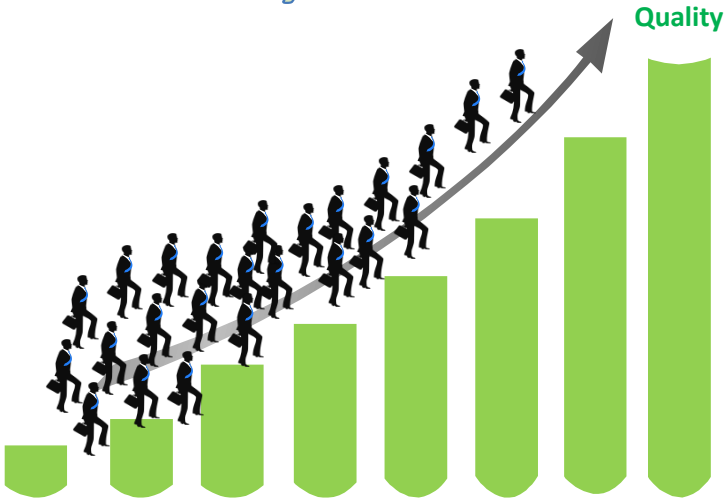
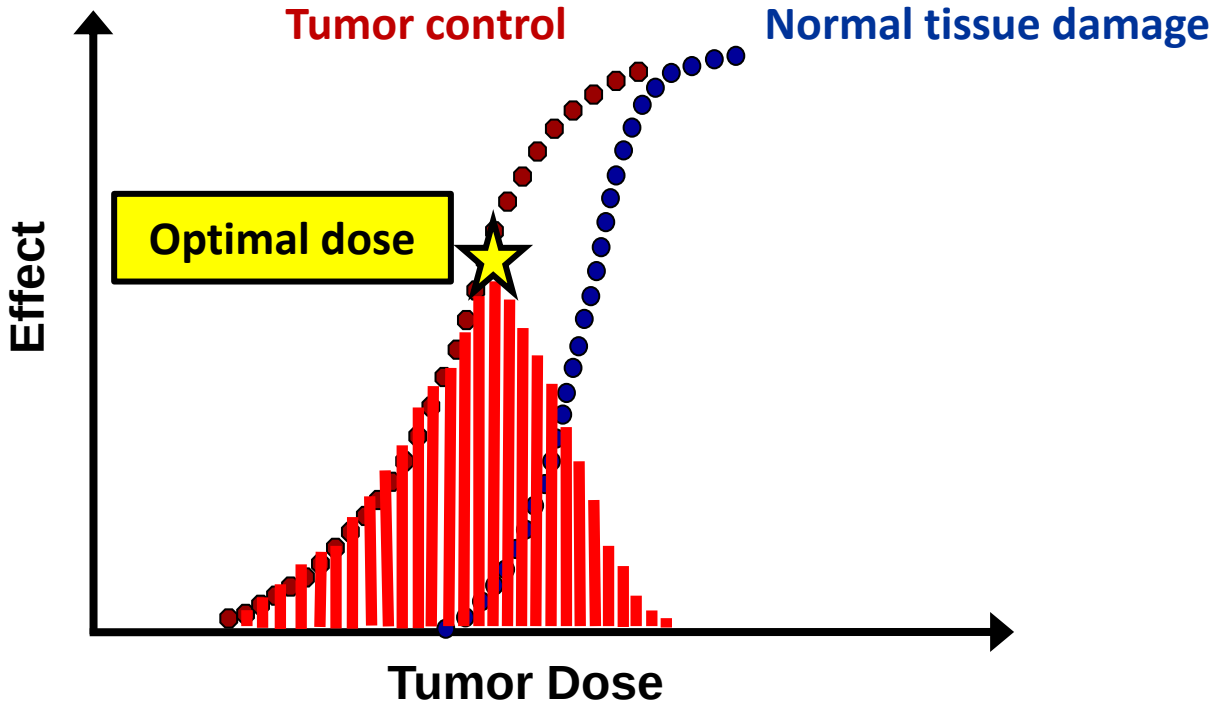
June 2nd, 2016

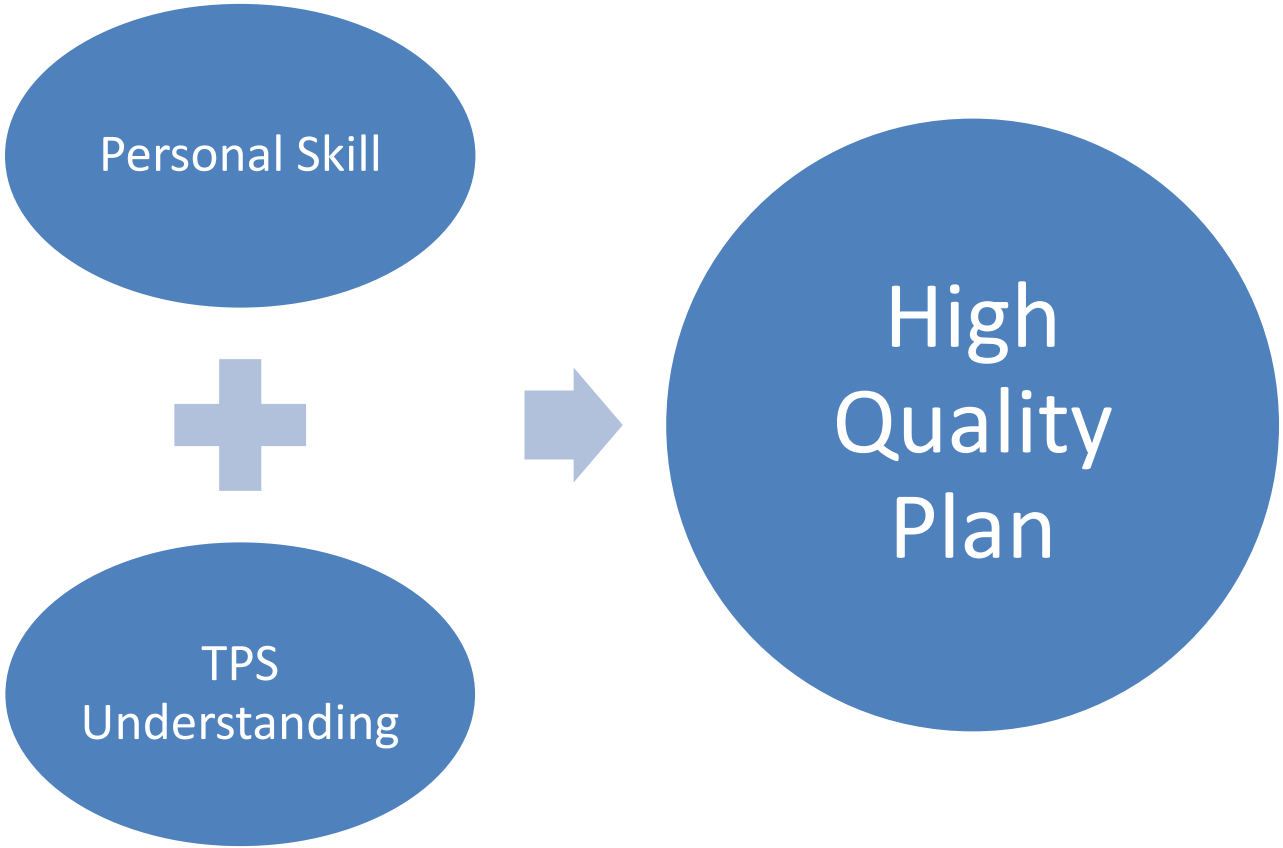


Agenda

- The 2016 plan competition: Ahmad Nobah (15 min)
- RapidArc top Plan: Saad Al-Delaijan (20 min)
- IMRT top Plan: Vanessa & Anthony Magliary (20 min)

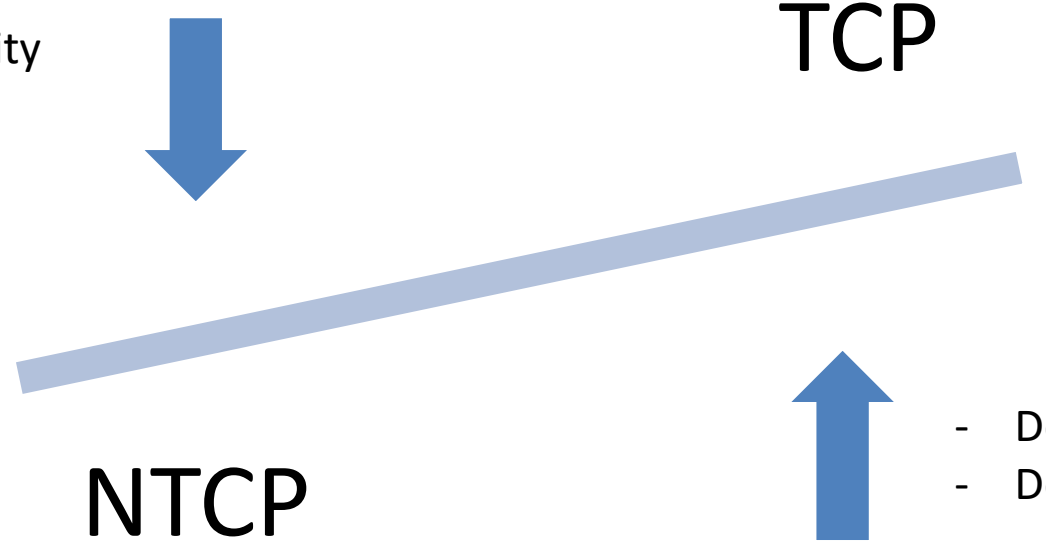
The Goal of Radiotherapy …




Personal Skill
TPS Understanding
High Quality Plan

Quality Specifiers

- Dose Conformity
- OAR Sparing



- Dose Homogeneity
- Dose Conformity

In Radiotherapy

The clinical criteria are ‘mostly‘ achieved

but still the plan quality varies

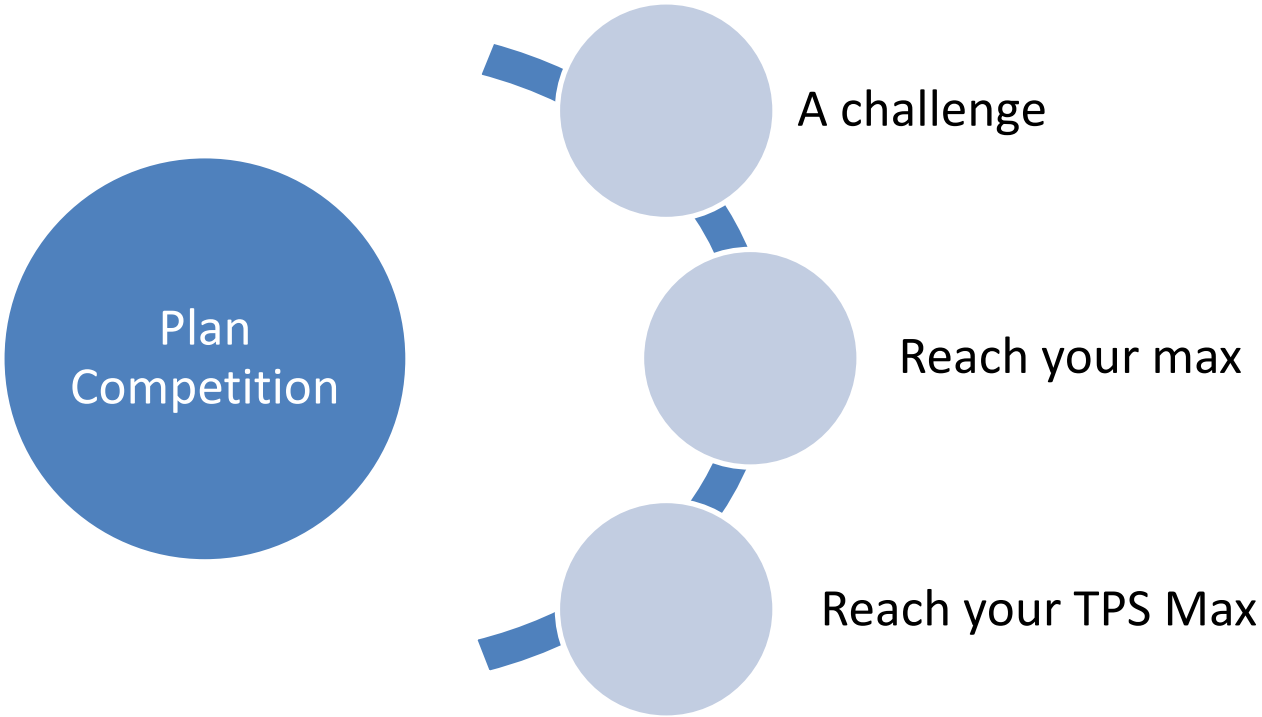
Planners differ in skills, TPS understanding, experience, ... etc

This causes plan quality to differ from planner to the other

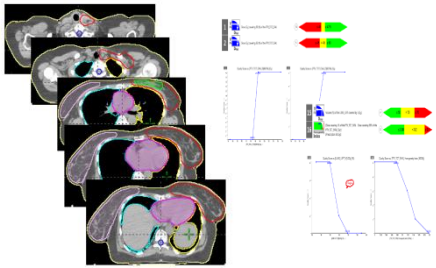
How can unify the quality of plans in a more objective approach?

Is there a way to stimulate planners worldwide to reach the max of their capabilities?

Plan Competition


Plan
Competition
A challenge
Reach your max
Reach your TPS Max

Plan Competition - Concept



Download

Plan

Select Best Plans

Share Best Plans & Techniques

Through Live-webinar and shared documents

Competition Cycle

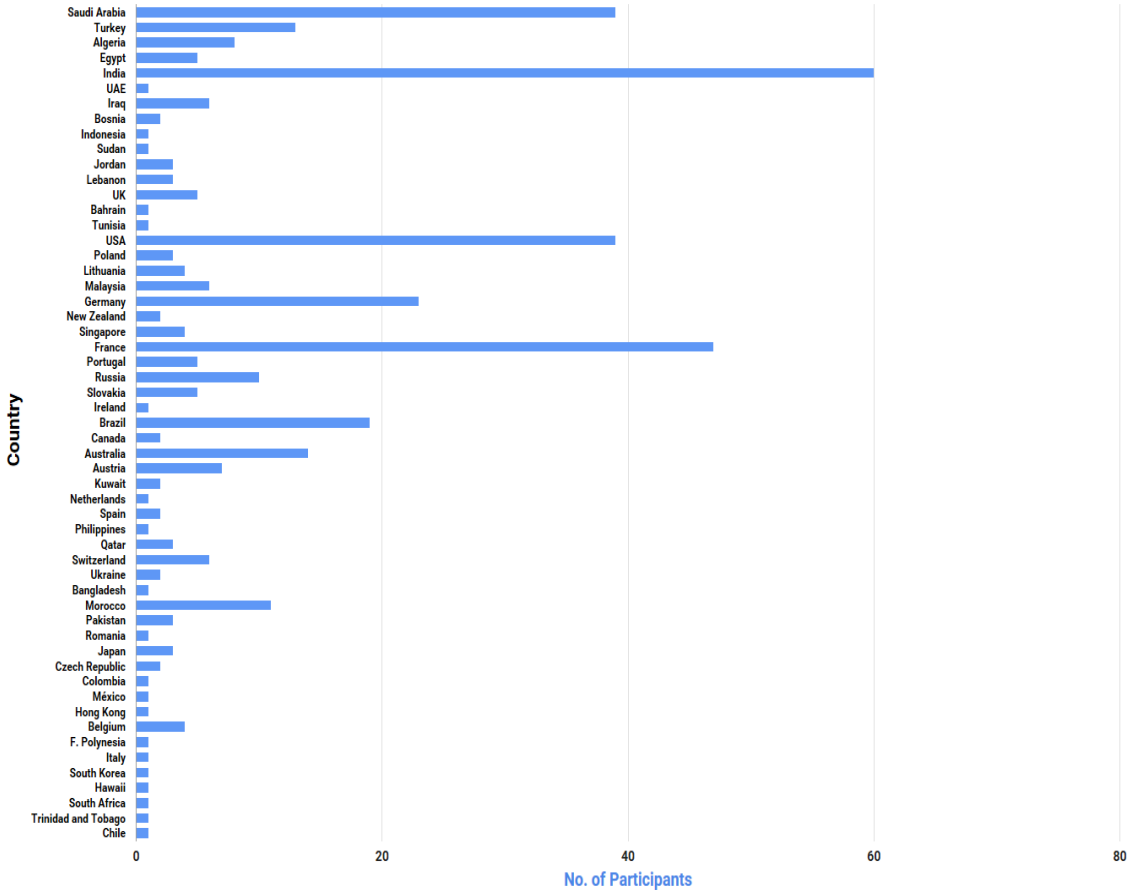
The first edition of the Radiotherapy International Plan Competition:

- Statistics
- Case Description & Dosimetric Criteria

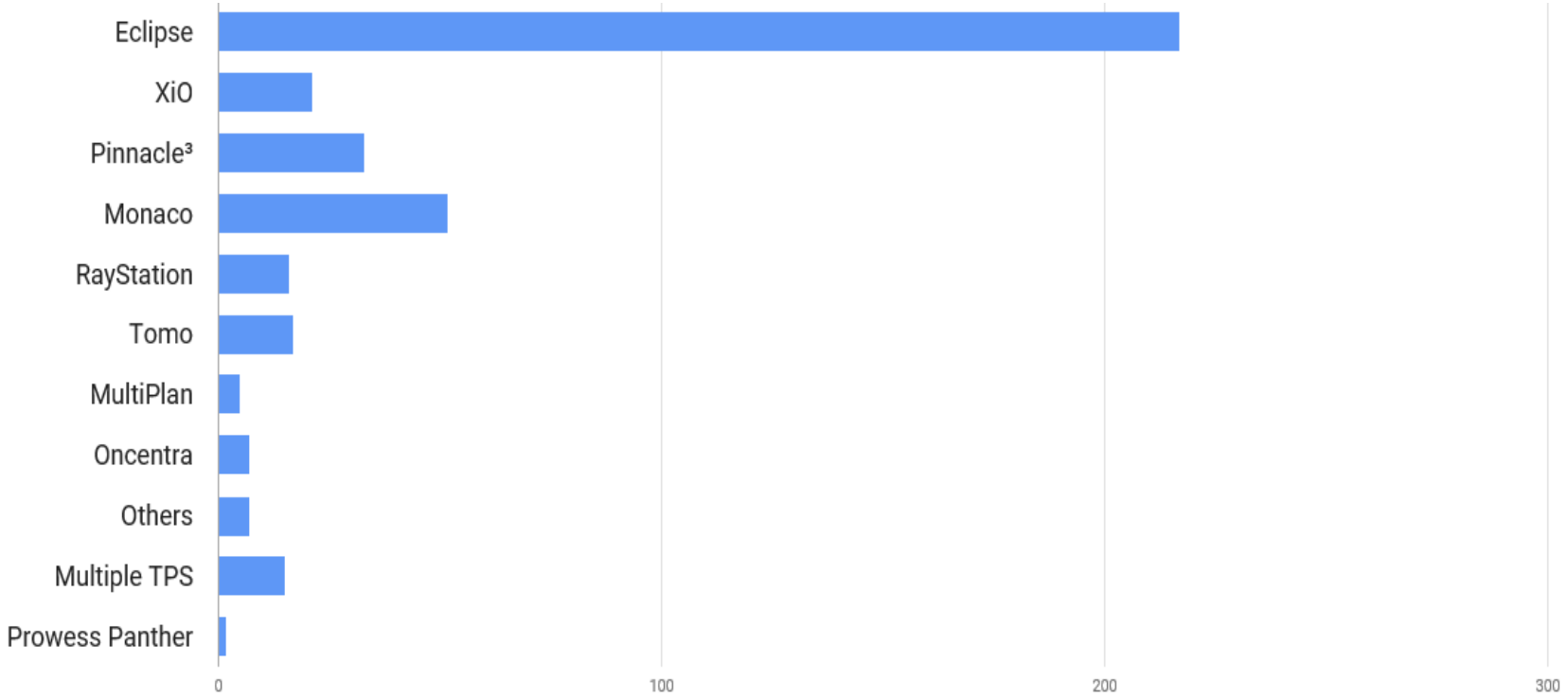
Total Participants ~ 400
From ~ 55 countries
210 Submitted Plans

The Number
Is increasing

Participants Per Country



Treatment Planning Systems



No. Participants

Website

Website

http://www.radmed.org/plancompetition2016.php

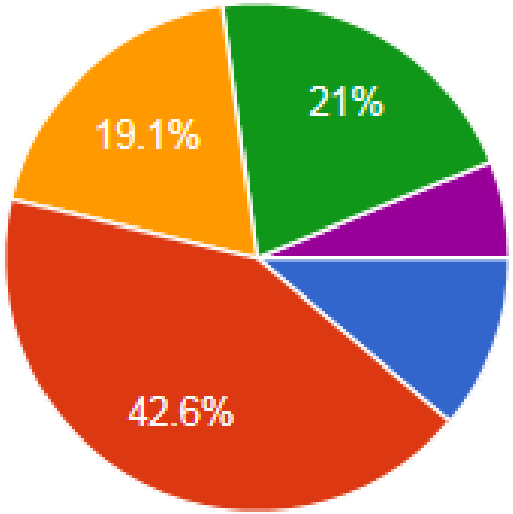
WhatsApp competition group.
To join us, send a msg to the admin No:
+966-531271245

To join our mailing list:
Send email to
anobah@kfshrc.edu.sa

Evaluation Reponses

166 Forms Submitted

How did you hear about the competition?



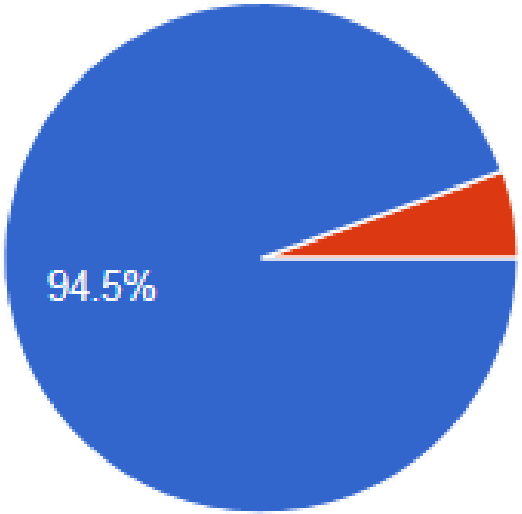
Website	**11.1%**
Colleague	**42.6%**
Social Media	**19.1%**
Emails	**21%**
Other	**6.2%**

Organizers' Response

Please share the competition with your colleagues and use other means of sharing

Evaluation Reponses

Do you feel that such a competition was beneficial and improved your planning skills?



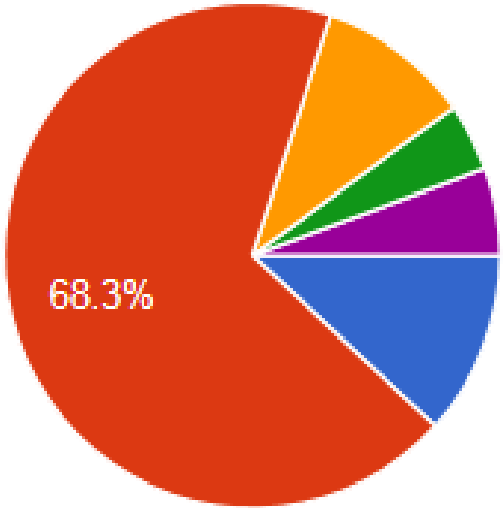
Yes	**94.5%**
No	**5.5%**

Organizers' Response

It was a tough competition ! But most have learned from being in such a challenging situation

Evaluation Reponses

What site you suggest to be selected for our next competition?

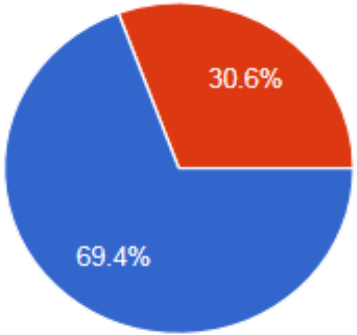


Brain	11.8%
Head & Neck	68.3%
Chest	9.9%
Pelvis	4.3%
Abdomen	5.6%

Organizers' Response

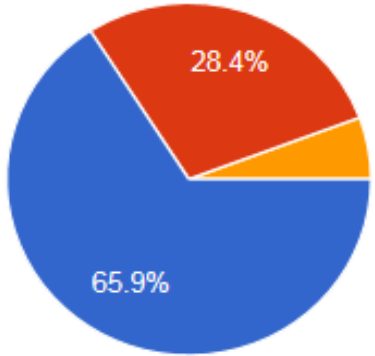
Decision has been made:
2017 Plan Competition will be Head & Neck case
Get Ready ☺

Was the time given to finish the plan (2 weeks) enough?



Yes	69.4%
No	30.6%

If the time was short, what do you suggest the period (weeks) to be for the next competition?



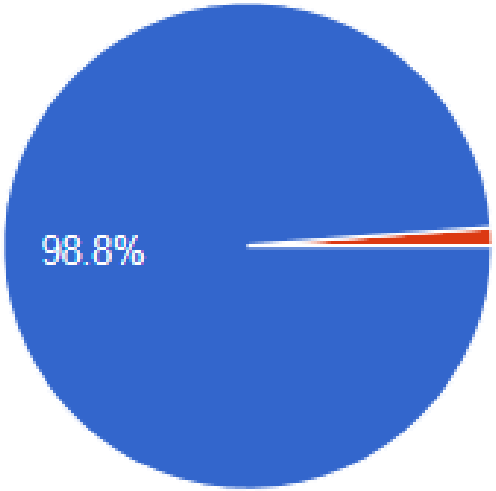
Three weeks	65.9%
Four weeks	28.4%
Five weeks	5.7%

Organizers' Response

2017 Plan Competition will have 3 weeks planning time

Evaluation Reponses

Would you recommend this competition to your colleagues in its next edition?



Yes	**98.8%**
No	**1.2%**

Organizers' Response

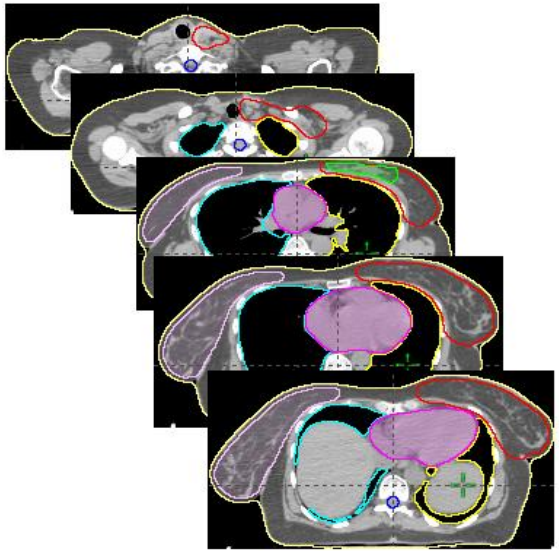
Thank you ☺

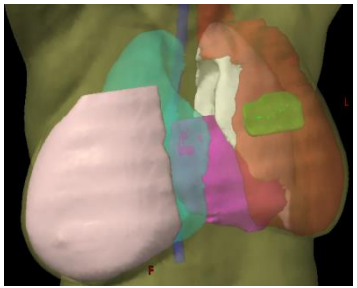
Please share this competition with your colleagues, we really like the competition community to reach ***thousands*** in the 2017

Case Description

Case Description

- Case diagnosis: Left Breast Cancer
- Treatment Site: Left breast with axilla and supraclavicular lymph nodes
- Target: PTV_TOT_EVAL
- Dose prescription: 50.0 Gy in 25 fr.
- Protocol followed: RTOG-1304 (Criteria squeezed more !)
- Techniques: 3D-CRT, IMRT, VMAT
- General plan criteria were set: # of fields, single isocenter, energies, … etc
- Dose calculation grid should be less than 3 mm
- PB dose calculation is not allowed to be used
- Generated plan should be deliverable (no couch/patient collision)





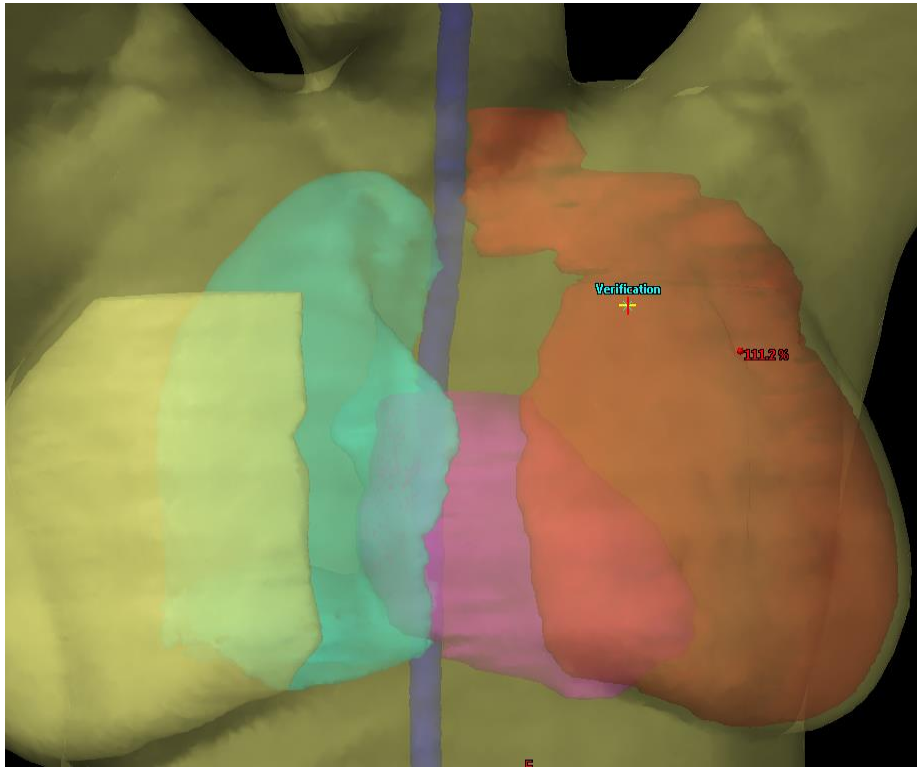
Challenging Criteria

1. Target: (Total of 45 points out of 100)

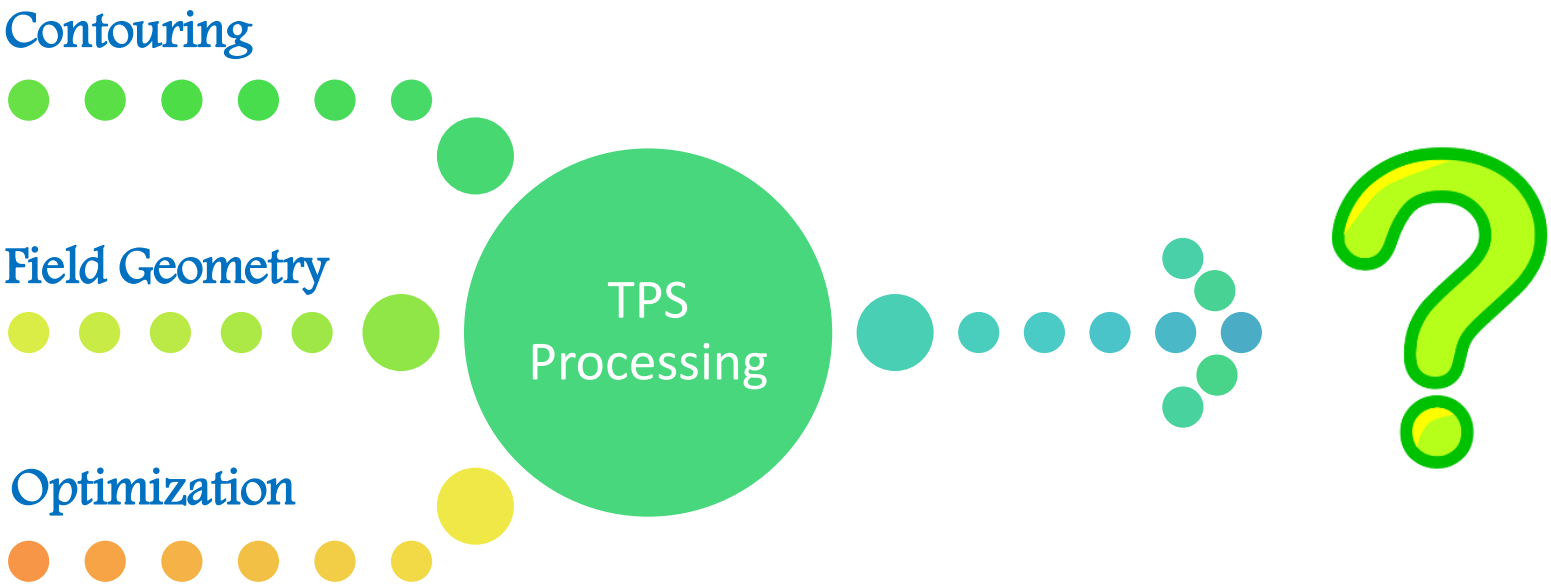
- DVH
- Conformity Index
- Homogeneity Index

2. OARs:

- Heart: (Total of 20 points)
- Left Lung: (Total of 19 points)
- Contra-lat Breast: (Total of 6 points)
- Right Lung: (Total of 4 points)



How to get started ?



Good inputs → Good outputs

How planners achieved such high quality plans in our left breast challenging case?

Let us find out now