Planning for Dummies: Step by step

1) Go to Care connect – find out about the PET-CT-MR dates also site of treatment , on protocol or not – 3rd MD's evaluation of treatment site (name , date , other info) we need this to put it in planner's check list document.
2) Go to main MIM station (next to Tanya) – Import the diagnostic PET- CT-MR to Mim PODS.
3) Go to any Mim station :
    - search for the patient
    - Rename today's scan as: "CT Simulation _ rest of the name".
4) Perform basic contours here (this prevents to contour on a wrong CT later) – save structures.
5) Open PET_CT and display it side by side and find the similar slice – go to contour tab – save it as a new session, "Please contour here".

Documents needed to be prepared for each patient before CT scan:

1) SPC (Special Physics Consult): go to patient's document – NEW – find SPC and ok – then double click on typed area – go to selection tab (button) – pick yes for multimodality fusion and IGRT – go back to text tab – click outside the sheet – it will automatically generate the text.
    a. After finishing the plan, when you want to give it to 2nd checker, you have to check everything and complete the care path. For SPC check the excel sheet for everything and also for dates: the date of service should match the date on excel sheet(there are two dates in excel sheet. the top one should match. This is the date of document creation which could be today's date or previous dates.)
    b. The start date on excel sheet is the date that patient starts the treatment.
    c. Author: put the AM/PM physicist's name.
    d. Supervised by physics 1, then when the 2nd checker is done he will change it to attending physician's name.

2) TX Planning Quality Report (PQR): (regular or protocol) – this is the Excel sheet with pass or no pass results which we need it after the plan is done. In PQR (as an example: write V60> 95%, not the way it is in the template).

3) Planning note IMRT _ Resident & Physician's name

4) Planner check list(before scan)

    a. After finishing go through the check list and check everything
    b. Author : Taeko
    c. Supervised by : physics1(at the beginning) then,
    d. After finishing everything assign it to 2nd checker (AM/PM physicist).

5) Care path – load from template and assign Taeko (only for the first one unless it will all appear on her task list).

a. Delete Respiratory management
b. Delete Exactrac import (if not on B)
c. Add SPC in carepath – right click anywhere >insert activity>add Taeko and also add activity of SPC – so now in carepath the SPC will appear.

Documents needed to be prepared for each patient after planning is completed:

1) Basic MU check (IMRT QA analyzes):
    a) Open Verisoft
    b) Pick the measured dose for A
    c) Pick the planned dose for B
    d) Check the results – should be green
    e) Put the view of the upper_right window back to LR profile or TG profile
    f) Save it as pdf in patients folder
    g) Open the excel sheet(IMRT QA.xlsx)
    h) Print screen the excel sheet.
    i) Open patient manager-go to documents>New>blank with box- paste the screen shot>crop>make it large and fit to page
    j) Open the pdf created from the verisoft > snapshot the file> attach to second page of the created document.

    Make sure:

    ✓ Authored by: Taeko (Dosimetrist)
    ✓ Supervised by: physics 1 at the beginning and then when the plan is ready put the numbers and assign it to MD.(this time she said assign it to MD). In the future see how it goes and come up with a final decision.
    ✓ Date on the excel sheet matches the date of service.
    ✓ In template name: write " Basic MU check IMRT QA_ Plan Name"

2) Tx Plan Report:(all head and neck patients have PQR – otherwise they might not have)
    a) Generate patient folder – Phi>physicist>Brainscan>……
    b) From the plan capture folder copy "Txplan_templete.doc (word document) to patient's folder.
    c) Open the document – fill the name
    d) Open the plan in eclipse , then screen capture:
        ✓ Dose off – CBCT off - structures off, only tumor(s) , PTV(s) on– beams on – right click on upper right window and go to BEV (you should be able to see

tumor) – make sure you are in field tab not in other tabs – screen capture and paste in document.

- ✓ Beams off – color wash on (50% or 60% or 100%) – Turn on OARs – DVH on – choose the "Dose prescription "tab and do screen capture and paste in document.
- ✓ Plan evaluation tab – pick the 9 window display – structures off – tumor on – 50% or 100% or pick something – screen capture and paste in document. (if tumor is so big then do another 9 slice).

e) In External beam planning – file > print> using template > DVH – plan report – BEV – 2D view > print them to PDF creator (2nd one in this computer) – in the new window click on "wait collect" > combine all (button on top) > click print > save > save it to patient folder (name it as Plan Report). Now the plan report is created. (Remember the DVH is messed up when created this way. Right click on DVH > PDF creator > OK >save> new name(should be on absolute dose).

f) Now we can combine all created documents. Open plan report.pdf > drag and drop the word document in this file > delete the blank pages > delete current DVH > paste the new one.

g) Go to patient manager > documents > import the plan report :

Authored by: Minsong or Taeko Document type: treatment planning

Supervised by: Allen min Chen template name: "plan name"

- ✓ For QA Dose export:
  - ➢ Open the QA plan
  - ➢ Select the frontal view window
  - ➢ Right click on Dose – select "export dose plan"
  - ➢ Pick Absolute – matrix X&Y pick 30X30 (or 25X25)
  - ➢ On the bottom uncheck the box for "burn marker pixels in the corners of the dose matrix"
  - ➢ "DICOM media file export filter" is OK
  - ➢ 1 file should be there (not more)
  - ➢ Change the path to pt's folder and finish

Exporting:

A) Export 2 things:

a) Mim PODS

b) MU check 2011 – Registry > H&N > Dicom export H&N > create folder-MRN

For chart Rounds:

1) After exporting from eclipse to mim – in mim select (CT-St-Ds) and open it
2) Pick the 1X2 display:

   a. Change the dose to prescribe dose (pick percentage on drop down list. Pick dose from 3 circles (last one, always use the highest prescribed dose.
   b. Contours on – delete any unnecessary structures
   c. Color wash on - unselect the isodose lines.
   d. Make bigger – zoom in
   e. Save as session : Chart Round_ “treatment site”
3) Now we have to attach the PQR (Plan Quality Report) to this session
   a. PQR should be in patient’s folder if not do to patient manager > documents > create the file)
   b. In Mim right click on session > create new DICOM> Encapsulated document > +Add > find the document from patient’s folder > save it as “Plan Quality Report_”Treatment site”.
4) After creating chart round > go to patient manager > care path > complete the mim task > then check the SPC document.

MU check for 3D conformal:

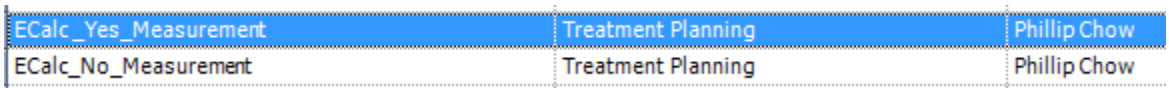
1) In the software
    a. Look for pt.
    b. Select proper plan
    c. Open the plan report Pdf file
    d. Find the numbers for SSD, dose and …. And type if in proper place
    e. % diff should be less than 5% for each field
    f. Print > pdf > pt's folder – name it as : "Basic calc _ Plan name".
    g. Upload in pt's documents by import or new(snapshot).

Creating Verification plan :

1) Electron: this example is for 9e.

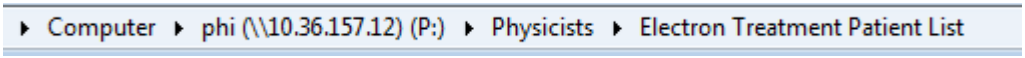
There are two plans

a) Trial plan: this is the plan created initially then we put the information in spread sheet (located: see below) and it gives us the MUs then we put the MUs in treatment plan. Go to patient manager > New > find these two documents.(YES_Measurement is for the cases that needs to do QA on machine like: small field size, irreg field,… and NO_Measurement is used when we don't need actual measurement)

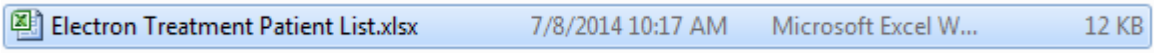


b) Treatment plan: which the deliverable plan and gets it MUs from part a.

- From treatment plan :
  - Create a verification plan
  - Change the phantom to WEQ
  - No normalization at the beginning
  - Calculate
  - Then put the 9e_calc point for normalization
  - Then 3 different MUs should be entered into other excel sheet (actual plan – spread sheet – calculated QA plan). They should be within ?????% of each other.
  - Go to



And open the



File and enter the numbers:

MUs from excel sheet

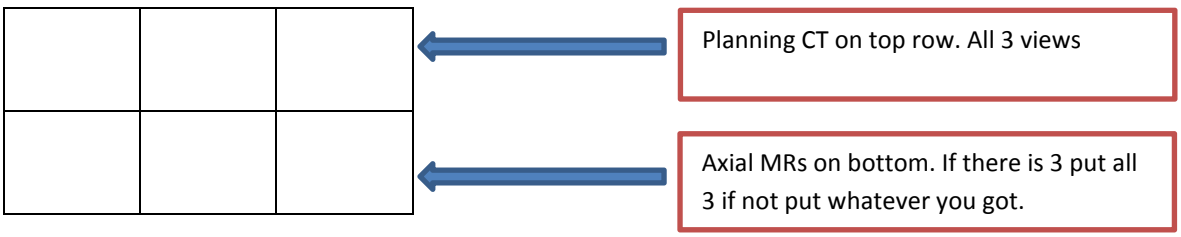
MUs from QA plan

MUs from Eclipse treatment plan

XLS MUs	Eclipse QA MUs	Eclipse Mus
222	225	224
225	229	234
222	228	231
234	235	224

Tanya: Preparation for Kaprelian for contouring

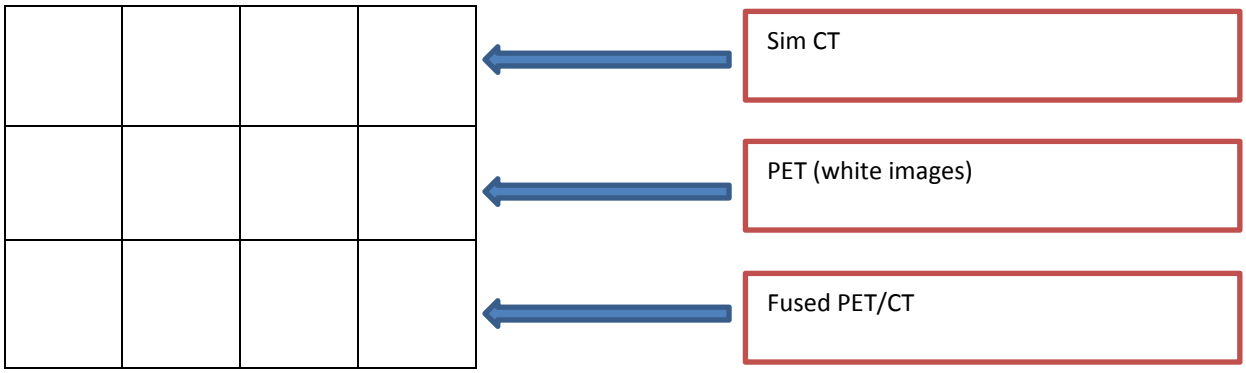
- After fusing MR to CT
- Save as registration
- Pick the 2X3 display



- Start contouring . when contouring look at the MR also to make sure it matches everything.

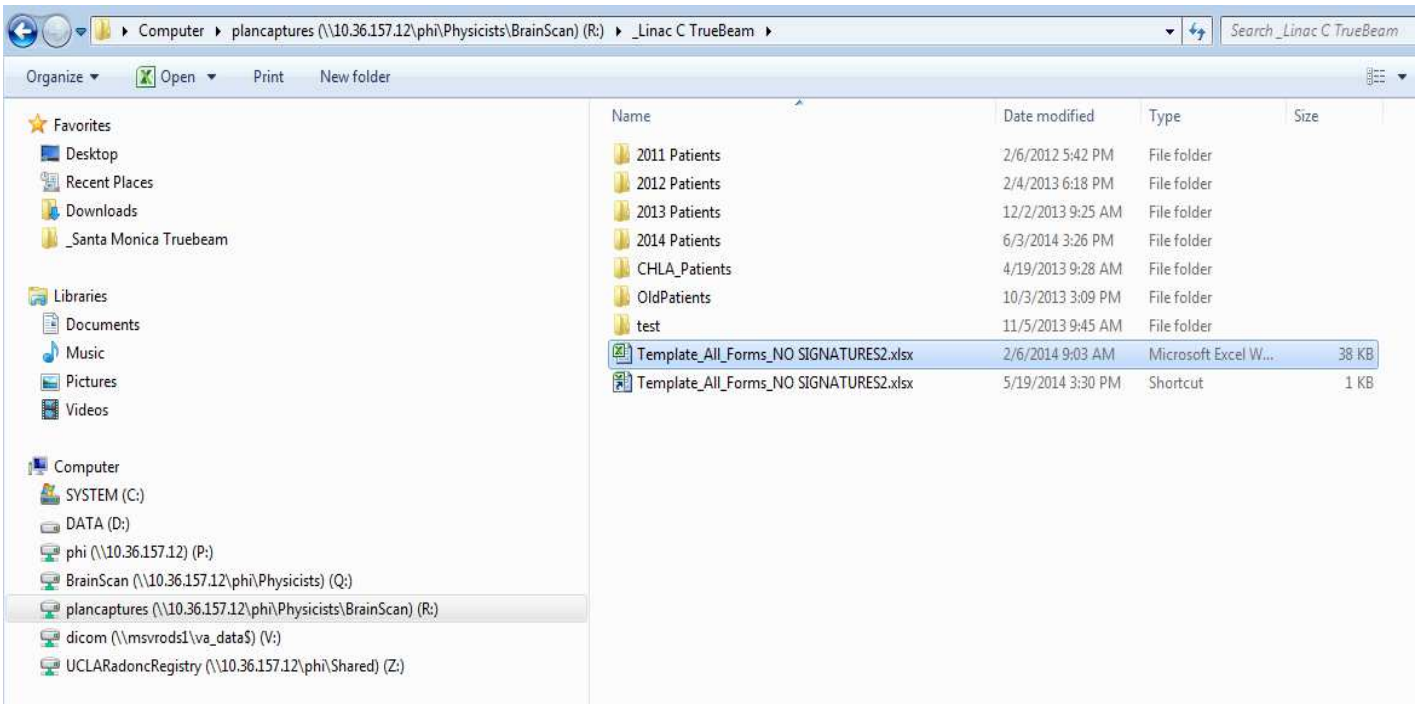
- After finishing the contours save as session “Dr contour here”.
- Also save structures with the same naming.

Tanya: Preparation for Percy lee



Put it in proper place later:

- Field MU verification > the date should be the day after approval date.
- Absolute Dosimetry and Per Field MU Verification template is located in :



- For Import into eclipse download it from : \\msvrods\va_data$ it is the dicom folder.