FAQs- Janet’s Inbox

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Disclosures

I have no relevant conflicts of interest to disclose.
Objectives

1. Determine myeloma disease status pre- and post-HCT

2. Use correct baseline to determine disease status

3. Recognize & report the new NHL subtypes that have been added to the NHL/HL form
Which disease has the most frequently asked questions?

A. Non-Hodgkin Lymphoma (NHL)
B. Multiple Myeloma
C. AML
D. MDS
Multiple Myeloma

1) Disease status
2) Baseline to use to determine disease status
   • At time of HCT
   • At time points post-HCT
3) Oligoclonal bands post HCT
How to Determine Disease Status

• Determine if disease is measurable at diagnosis:
  - Serum M-protein $\geq 1$ g/dL and/or
  - Urine M-protein $\geq 200$ mg/24 hours

Free light chain levels may be used in place of the M-protein, provided the involved chain is $>10$ mg/dL & the $\kappa/\lambda$ ratio is abnormal at diagnosis
What Baseline to Use When…

Determining disease status at time of HCT

No relapse or progression at any time between diagnosis and 1st HCT:

*Use the disease parameters from diagnosis as the baseline.*
Patient was treated for a relapse or progression in between diagnosis & 1st HCT:

*Use the disease parameters obtained at the time of relapse or progression as the baseline (the baseline is reset to the time of the relapse or progression)*
What Baseline to Use When…

Determining disease response to HCT

HCT planned as part of the initial therapy without a prior disease relapse or progression:

Use disease parameters obtained at diagnosis
What Baseline to Use When...

Determining best response to HCT

Patient had a treated disease progression or relapse prior to HCT:

*Use disease parameters obtained at time of the relapse or progression*
What Baseline to Use When.....

Patient has not received any therapy within 6 months of HCT or has an untreated relapse or progression

Use the disease parameters obtained prior to the start of prep to determine best response to HCT.
Recipient undergoes a Tandem Transplant. Tandem transplants are considered part of “one” treatment plan.

The baseline to use following the 2nd HCT would be the same baseline used for the 1st HCT provided there has not been a disease progression or relapse in between.
# What Baseline to Use When...

<table>
<thead>
<tr>
<th>DS at time of HCT</th>
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<th>DS at time of HCT</th>
<th>Disease response to HCT</th>
<th>Disease response to HCT</th>
<th>Disease response to HCT</th>
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<tbody>
<tr>
<td>Initial Therapy</td>
<td></td>
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<tr>
<td>No R/P (treated)</td>
<td>Yes R/P (untreated)</td>
<td>Yes R/P (untreated)</td>
<td>No R/P (treated)</td>
<td>Yes R/P (untreated)</td>
<td>Yes R/P (untreated)</td>
</tr>
<tr>
<td>DP at diagnosis</td>
<td>DP at R/P</td>
<td>DP prior to the start of prep</td>
<td>DP at diagnosis</td>
<td>DP at R/P</td>
<td>DP prior to the start of prep</td>
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</tbody>
</table>

DS = disease status  R/P = relapse or progression,  DP = disease parameters
MYELOMA CASE STUDIES
Case #1

A patient is diagnosed with IgG kappa myeloma.

- Serum M-spike = 6 g/dL (or 6000 mg/dL)
- 24-hr urine M-protein = 1000 mg/24 hrs
- Bone marrow biopsy- 40% plasma cells

Patient treated with Velcade, Doxil & Dexamethasone x 4 cycles
Case #1

• Patient re-evaluated after the 4th cycle of VDD.
  ▪ Serum M-spike = 2400 mg/dL
  ▪ Bone marrow aspirate- 15% plasma cells
• Disease status- PR

• Patient received Cytoxan for autologous stem cell mobilization. Labs were obtained immediately prior to the start of the prep regimen.
  ▪ Serum M-spike = 1600 mg/dL
  ▪ Bone marrow aspirate- 8% plasma cells
Case #1

What is the patient’s disease status immediately prior to the start of the preparative regimen?

A) Very Good Partial Remission (VGPR)
B) Partial Remission (PR)
C) Stable Disease (SD)
D) I don’t know- not enough information provided to make determination
Case #2

The recipient from Case #1 had their autologous HCT. Lab studies were obtained at 60 & 100 days post HCT.

- SPEP/UPEP are negative for an M-spike at Day 60 & 100
- Serum & Urine Immunofixation are positive for IgG kappa at Day 60 & 100
- Bone marrow biopsy <5% plasma cells at Day 100
Case #2

What disease response would you report for this recipient at 100 days post-HSCT?

A) Partial Remission (PR)
B) Very Good Partial Remission (VGPR)
C) Near Complete Remission (nCR)
D) Complete Remission (CR)
Case #3

A 55 year old AA male is diagnosed with IgG lambda myeloma. Results of the initial work-up include:

- Serum M-spike = 4 g/dL (or 4000 mg/dL)
- 24-hr urine M-protein = 1000 mg/24 hr
- Bone marrow aspirate = 60% plasma cells

Patient receives 2 cycles of Revlimid & Dex, then re-evaluated:
- Serum M-spike = 2000 mg/dL
- 24-hr urine M-protein = 210 mg/24 hr
Case #3

What is the patient’s disease response after two cycles of Rev/Dex?

A) Very Good Partial Remission (VGPR)
B) Partial Remission (PR)
C) Stable Disease (SD)
Case #3

The patient’s PR status was confirmed with a 2nd measurement. The patient received two additional cycles of Rev/Dex & re-evaluated for disease response.

- Serum M-spike = 2900 mg/dL
- 24-hr urine M-protein = 600 mg/24 hr
- Bone marrow aspirate = 30% plasma cells
Case #3

What is the patient’s disease response after a total of 4 cycles of Rev/Dex?

A) Very Good Partial Response (VGPR)
B) Partial Response (PR)
C) Stable Disease (SD)
D) Progressive Disease (PD)
Case #3

Patient is switched to Vincristine, Adriamycin & Decadron (VAD) and is re-evaluated after two cycles.

- Serum M-spike = 1400 mg/dL
- 24-hr urine M-protein = 190 mg/24 hr
- Bone marrow aspirate = 15% plasma cells

The plan is to give IV Cytoxan mobilization. What is the patient’s disease response to the 2 cycles of VAD?
Case #3

The patient achieved a PR after two cycles of VAD. What studies were used as a baseline to make that determination?

A) The studies obtained at diagnosis
B) The studies obtained after first two cycles of Rev/Dex
C) The studies obtained at time of progression
Case #3

The patient has undergone their autologous PBSC HSCT & has been evaluated monthly for the 1st three months post HSCT.

• Day +30 evaluation:
  ▪ Serum M-spike = 1000 mg/dL
  ▪ Serum immunofixation (+) for IgG lambda
  ▪ 24-hr urine M-protein = 190 mg/24 hrs
  ▪ Bone marrow biopsy = 7% plasma cells
Case #3

Day +60 evaluation:

- SPEP/UPEP- no monoclonal band
- Serum/Urine immunofixation (+) for IgG lambda
- 24-hr urine for M-protein = 90 mg/24 hrs
Case #3

Day +100 evaluation:

- SPEP/UPEP - no monoclonal band
- Serum/Urine immunofixation (+) for IgG lambda
- 24-hr urine for M-protein = 0 mg/24 hrs
- Bone marrow aspirate <5% plasma cells
Case #3

What is the best disease response to HCT that you would report at Day +100 for this patient?

A) Stable Disease (SD)
B) Partial Remission (PR)
C) Very Good Partial Remission (VGPR)
D) Near Complete Remission (nCR)
E) Complete Remission (CR)
Oligoclonal Bands Post-HCT

- Did recipient’s IgG became IgA?
- Can lambda change to kappa after HCT?
- Usually small, more than one M-spike occurring in the phase of recovery of immune function
Oligoclonal Bands Post-HCT

Original IgG kappa M spike 3.2 g/dL

- Day 100 after transplant:
- SPEP/SiFX: IgG Kappa 0.14 g/dl, free lambda and non-quantifiable IgA lambda

13. Specify monoclonal immunoglobulin result
   - [ ] Present → Specify bands present:
   - [ ] Absent

14. Original monoclonal bands
   - [ ] yes  [ ] no

15. New monoclonal (or oligoclonal) bands
   - [ ] yes  [ ] no
Non-Hodgkin Lymphoma Queries

A research collaboration between the National Marrow Donor Program (NMDP)/Be The Match and the Medical College of Wisconsin
Richter’s Transformation

- Occurs when CLL transforms into DLBCL
- Affects ~5% of all CLL patients at some point
Lymphoma Sub-types

B-cell NHL with features between DLBCL & Classical HL

- Now a recognized entity in the WHO classification
- Synonyms - Grey Zone Lymphoma
- Large B-cell NHL w/ Hodgkin features
- Most common in men ages 20-40
Lymphoma Sub-types

B-cell lymphoma with features between DLBCL & Burkitt

- Used to classify cases not meeting criteria for DLBCL or classical Burkitt lymphoma

- Sometimes referred to as “double hit” NHL
MDS vs. AML Queries
MDS vs. AML - Case #1

- Patient diagnosed in late 2008 with MDS (RAEB-1)
- Treated with Vidaza & achieved a CR
- BM biopsy in 2010 revealed 22% blasts c/w AML
- Treated with induction chemo. BM biopsy post induction chemo revealed <5% blasts, but still had evidence of myelodysplasia.
- Patient underwent an allo HCT instead of additional chemotherapy.
MDS vs. AML- Case #1

What is the disease status to report at time of HCT?

A. AML- 1\textsuperscript{st} remission
B. AML- PIF
C. MDS
D. None of the above
Once the caterpillar transforms into a butterfly, is it still a caterpillar?
MDS vs. AML- Case #1

Remember…..

Once a patient’s disease has transformed from MDS to AML, the patient cannot be in remission if there’s evidence of MDS.
MDS vs. AML- Case #2

- Patient diagnosed with AML in 2008
- Achieved CR after induction therapy & received 4 cycles of HiDAC as consolidation therapy
- In 2013, patient complained of fatigue & bruising
- BM biopsy documented erythroid & megakaryocytic dysplasia with no increase in blasts. Abnormal karyotype with monosomy 7.
- The diagnosis was therapy related MDS
- Patient treated with Vidaza & achieved HI prior to their allo HCT.
MDS vs. AML- Case #2

What should be reported as the primary diagnosis for HCT?

A. MDS
B. AML
C. Other
MDS vs. AML- Case #2

Remember……

- The AML did **not** transform from MDS. The MDS was related to the chemotherapy the patient received to treat the AML.
- The primary disease to report for HCT is MDS.
- The prior AML should be reported on the Pre-TED (F2400) in Q134-135.
Questions