MYELOMA HIGHLIGHTS FROM ASH CONFERENCE ORLANDO 12/6-12/10/2019

According to Jack Aiello (definitely not medically trained)

PREFACE

This is my 14th year attending ASH (American Society of Hematology), where over 30,000 attendees from all over the world (hematologists/oncologists, lab researchers, oncology nurses, scientists & 300 pharma companies) present the latest research results via both oral presentations (1000) as well as posters (3000) on all blood diseases, especially cancers. This year there were more than 800 abstracts on Multiple Myeloma (**MM**) alone, with more than 100 of these selected for oral presentation. I'm grateful to the IMF (www.myeloma.org) and their pharma sponsors for sending me to ASH so that I can learn and share my patient perspective with you.

Rather than attending talks on Biology, I typically focus on the Clinical Trials, which I'm able to understand and are more relevant near-term to patients. Even at that, there are overlapping MM oral sessions as well as 4'x6' posters without reprints, so it's always possible that I have not included something of interest to you or made a typo because I can't read my own writing as detailed powerpoint slides are presented quickly. You might want to view the published abstracts at www.hematology.org and various press releases. Wherever possible, I've listed Day-Abstract#-Lead Investigator after the trial results, e.g. {Sat-**140**-A.Krishnan}. Clicking on the abstract number brings up the actual abstract, though updates may have been presented at ASH.

There are many ways to learn more about results from this conference. There are scheduled webinars (IMF 1/9/20, MMRF 12/18/19-check for replay) which you can listen to live or by replay. You'll also find some patient blogs (including mine) as well as MM expert video interviews posted on the IMF website (https://ash2019blogs.myeloma.org/), Patient Power (www.patientpower.info), and Myeloma Crowd (www.myelomacrowd.org) among others. And all of us in the SF Bay Area should attend the LLS Blood Cancer Conference (which includes updates from ASH) Jan 25, 2020 (register at https://www.eiseverywhere.com/ehome/index.php?eventid=474144&). Dr. Sandy Wong from UCSF will do a great job presenting the latest information. Other excellent sources include: 1) A replay with slides of the IMF's Friday Symposium at: https://www.myeloma.org/IMF-ASH-Orlando; 2) A replay of the IMWG Conference Series-a great summary of ASH at: https://www.myeloma.org/videos/imwg-conference-series-ash-2019-orlando-fl.

Presentations and posters of clinical trial results follow the same format: Background (including hypothesis), Study Objective, Design & Treatment schema, Patient Characteristics & Cohorts, Responses (include high-risk cytogenetics), Toxicity (hematological and non-hematological), Conclusion, and Next Step. Remember, the goal of Phase 1 (typically handful of patients) is to determine "Maximum Tolerated Dose"; Phase 1/2 and 2 (typically 25-75 pts) continues to measure dosage escalation and safety while looking at responses; and finally Phase 3 (several hundred patients) compares response rates between new and current standard of care (SOC) treatments.

Treatment schedules, typically for **ND** (Newly Diagnosed) or **RR** (Relapse/Refractory) MM are defined for stages of **Induction**, and optionally **Transplant (SCT)**, **Consolidation**, and **Maintenance** with specified **Randomization** along the way; dosage amounts and scheduling are provided for each drug along with optimum number of **treatment cycles** (typically 28 days). **Risk stratification** correlates various patient characteristics such as cytogentics-FISH analysis (e.g. chromosome deletions and translocations) and gene-expression profiling (GEP) but is defined differently than Risk for **SMM** (Smoldering Myeloma). And while all these details are provided in the actual abstract, I don't necessarily list them below. Risk measurement in SMM evaluates the identifiable chance of progressing on to active Myeloma (**High** Risk) or not progressing (**Average** or **Low** Risk).

HIGHLIGHTS (e.g. My Takeaways...more details follow)

1. I would say this year's ASH didn't contain any surprises. This past year only saw the approval of one new drug, Selinexor, so many of the ASH studies provided another year of data for Immune Therapies such as CAR-T, mAb drug conjugates, Bi-specific T-cell Engagers, and naked mAb's. In addition, new drugs like Venetoclax, Isatuximab, and Iberdomide as well as new combinations therapies for both ND and RR patients are making their way through trials...some were discussed at ASH and some were not.

2. Between the US and China, there are lots of MM CAR-T trials and the patient experience numbers are starting to grow. More importantly, newer versions of CAR-T technology are focusing on producing longer responses.

3. Several studies focus on adding Daratumumab (Darzalex) to frontline treatment, typically resulting in improved responses. Upfront studies: DVRd, DKRd, DwkKRd, DCVd, DIRd, DVMP. Dara really has become an excellent drug for myeloma patients and will become even easier to take when given as a 5 minute shot in the future (quite likely to get FDA approval in 2020).

4. It's difficult to believe but I didn't attend a single presentation on transplants (other than when an SCT was part of a regimen being studied). Part of the reason for this is that time of the transplant sessions conflicted with immunotherapy presentations. I will try to report on what I learned about SCT's.

5. MRD (Minimum/Measurable Residual Disease) results are often incorporated in trial results, however the specificity of MRD varies, typically 10^{-5} or 10^{-6} or even sometimes in between, e.g. $3x10^{-6}$. In addition, imaging results (PET-CT or MRI) may or may not be included as part of patient responses.

6. There continue to be trials that focus on specific groups of patients, such as HR SMM and HR MM. Unfit and frail MM patients are also studied in order to improve their treatment outcomes with good quality of life.

COMMENTS AND DISCUSSIONS I FOUND PROVOCATIVE

7. For HR SMM pts, "Should the doctor decide treatment for patients or should patients decide after getting appropriate information?" J San Miguel (Spain)

8. "When the M-spike increases ½ gram and hemoglobin decreases by ½ gram, that SMM pt has a 90% risk of progressing to MM within 2 years." SVRajkumar (Mayo)

9. "The older the patient, the lower the percentage of a pt being high risk." T Martin (UCSF)

10. "Personally, I think HR SMM is more like MM, and should be treated as such. Maybe one day it will be defined as MM and lower risk SMM will become MGUS." MV Mateos (Spain)

11. "Each of these therapy combinations for MM should be modified to the patient's needs." J Mikhael (TGen, CMO of IMF)

12. "For T(11;14) patients, Venetoclax + Vel-d is dramatically helpful." B Durie (Cedars-Sinai, CoB IMF)

13. "One reason CAR-T's aren't lasting longer is that patient T-cells are exhausted. Earlier treatment might be more effective." J Mikhael (TGen, CMO of IMF)

14. At the IMF Symposium "Approaches to Achieve Best Possible Outcomes in MM", about 1000 attendees (2/3 physicians) came from all over the world with a surprising majority attendance from Europe: Euro-40%, Can-24%, US 22%, Asia-9%, ROW-5%.

15. To help determine treatment for relapsed/refractory MM patients, Dr. Rajkumar suggested using the acronym TRAP: T-Timing of relapse; R-Response to prior treatments; A-Aggressiveness of relapse; P-Performance status (e.g. what can the patient handle).

16. "Checkpoint inhibitors for MM are not quite dead yet." A Cohen (UPenn)

17. Some high risk is higher risk than others. "Del 17p is high risk when occurring in >55% of MM cells. If TP53 mutation is also present, this patient is 'ultra' high risk." J Kaufman (Emory)

18. "For HRMM, Emory favors KRd -> SCT -> KRd maintenance, but more study is needed." J Kaufman (Emory)

19. For IFM 2009 (VRd -> SCT OR more VRd -> 1 yr Maintenance), MRD- was higher in SCT arm (30% vs 20%). However, PFS was the same for MRD- pts in both arms, reinforcing the mantra that achieving deep responses, no matter how you get there, is important. E Manasanch (MD Anderson)

20. "The first CAR-T talk at ASH was presented in 2015 as a Late Breaking Abstract. Today we're focused on making CAR-T's better by 1) Developing other targets (e,g, dual targets), 2) Better product composition (e.g. bb21217 improvement over bb2121), 3) Better cell engineering (e.g. "armored" or "on-switch"), 4) Timing of treatment (e.g. give earlier) and 5) Thinking 'Inside' the box (better production)." N Shah (UCSF)

21. "These products may become complimentary: CAR-T has a duration issue so add a BiTE or ADC for maintenance." MV Mateos (Spain)

22. I didn't see any talks on the ADC GSK2857916 (Belantamab, Belimaf), Dr Cohan reported that this drug, which previously demonstrated 60% ORR as a single agent for N=35 RRMM pts (57% more than 5 LOT), is actively being tested in DREAMM studies. DREAMM-2 study just announced 32% ORR for nearly 200 pts who were triply refractory (PI, IMID, and Dara) but about ¼ pts with ocular toxicity.

SMOLDERING MM

23. Phase 2 trial results for Ixazomib (Ninlaro) + Rev-dex in HR SMM (N=53) given nine cycles (4gm-25gm-40gm), then 15 cycles maintenance (4g-15g-0 dex) is effective. sCR=31%, >= VGPR=50%, ORR=94% with 70% MRD- at 10^{-6} for >= VGPR pts. And to date, none of these pts has progressed to MM. Longer follow-up for disease outcome is on-going. {Mon-580- M Bustoros}

24. While the previous trial 580 would be considered a "preventative strategy", this study is considered "curative strategy" for HR SMM pts. This GEM-CESAR regimen is KRd -> SCT -> KRd consolidation -> Rd maintenance up to 2 yrs. For N=90, ORR & CR have been measured at different stages after induction (94%, 43% for 90 pts), after SCT (99%, 63%, for 83 pts), and after consolidation (100%, 75%, for 81 pts). Similarly MRD at 10^{--6} via NGS increases at each step 31%, 56%, and 53% respectively. And at 35 mos, PFS and OS are 92% and 96% respectively. Interestingly, the protocol was amended to rescue pts with Dara-Pom. Of course, more time is needed before it can be said if this is curative for some HR SMM pts. {Mon-781- MV Mateos}

FRONTLINE (INDUCTION OR FIRST LINE) THERAPY

25. The Phase 2 study with Dara-VRd x4 induction, SCT, Dara-VRd x2 consol, 24 mos Dara-R maintenance compares 200 randomized pts to a comparable VRd arm (called Griffin). So far the Dara arm improves response rates and depth of response (>= CR 80% vs 61% so far...keeps improving after each phase) but 2-yr PFS (96% vs 89%) and 2-yr OS (98% vs 96%) are similar (likely due to short timeframe). The Dara arm has more neutropenia but otherwise side effects are similar. So these results will need to be examined 1yr and 2yr post maintenance. {Mon-691- P Vorhees}

26. This study targets Unfit and Frail MM patients getting Ixa-Dara-low dose dex (20mg cy 1-2, 10 mg cy 3-9, 0mg on maintenance up to 2 years). For N=46 (23 each), ORR was 74% in Unfit and 78% in Frail. Med PFS was 23 mos and 12 mos respectively. Although there was limited toxicity, some infections were noted, resulting in early mortality. {Mon-695- S Zweegman}

27. The Alcyone study for Non-TE MM pts (N=706) was updated for OS, having randomized pts with VMP +/- Dara. At 42 mos, PFS was 36% vs 19%, ORR was 91% vs 74%, MRD- at 10^{-5} was 28% vx 7%, and OS was 75% vs 62%, all favoring the Dara arm. {Mon-859- MV Mateos}

28. This Ph 2 study of weekly Carfilzomib -wKRd-Dara for 8 cycles showed that 23 of 30 pts achieve MRD-(10^{-5}). As such, a Ph 3 trial called ADVANCE comparing wKRd-D vs SOC is forthcoming. {Mon-862- O Landgren}

TRANSPLANTS/CONSOLIDATION

29. Although I wasn't able to attend, this randomized Ph2 study compared Cfz-dex maintenance vs Observation after getting Cfz-Cy-Dex induction in Salvage SCT. For N=168, the Cfz-dex arms prolonged Time To Progression by 10 mos. {Mon-601- H Gregersen}

30. This study assessed the efficacy of Elo+R+d -> SCT -> ERdx4 consolidation -> ERd-lite x 2yrs for N=52 pts. Standard risk ORR=89% (>=CR=43%) and for HR ORR=75% (>=CR=25%). HR had similar drop-offs for 18-mth PFS (88% vs 68%) and 2-yr OS (94% vs 49%). {Mon-603- J Berdeja}

TREATMENTS FOR RELAPSED/REFRACTORY (R/R) PATIENTS

31. In the only oral abstract involving our new myeloma drug, Selinexor, in a study called STOMP, Dr. Christine Chen examined the all-oral treatment of Selinexor (Xpovio), Pom and dex for relapsed/refractory multiple myeloma who had received prior Rev and PI's, SPd showed 56% overall response rate for N=51 pts averaging 4 lines of prior treatment and a median progression-free survival of 10.4 months for all patients. Expected dose of Selinexor to be 60 or 80 once weekly. {Sat-141- C Chen}

32. This Late Breaking Abstract (which I was not able to attend) compared Dara-Kd vs Kd for RRMM pts in a Ph 3 study (N=466) called Candor. It showed that the addition of Dara decreased the risk of progression and death by 37%. And the Dara-Kd arm further produced nearly 10 times as many MRD-results at 12 mos, as well as better & deeper responses ORR (84% vs 75%) and CR (29% vs 10%). {Tue-LBA-6- S Usmani}

MAINTENANCE

33. For N=91 patients who had an SCT followed by IRdx4 consolidation, this ph 2 trial compared the results of randomizing pts to Rev vs Ixa maintenance. After 12 cycles, both improved MRD- (at 10^{-6}) by 13% and 8% respectively. Side effects neutropenia, thrombocytopenia, and GI was higher in Rev but no Grade 3 in either group. While the goal of this trial was to determine non-inferiority of Ixa, the trial was actually stopped due to insufficient Rev sample size since about 1/3 of pts stopped Rev maintenance early due to toxicity. Therefore those pts intolerant to Rev may benefit from Ixa. {Mon-**602**- R Vij}

34. This is a complex regimen because it uses MRD- to guide treatment. This MASTER trial regimen for N=69 is Dara-KRd induction, SCT, and then consolidation of 0, 4 or 8 cycles of Dara-KRd according to MRD status at each phase of therapy. When pts reach 2 consecutive MRD- status ("confirmed MRD-"), they stop treatment; if they never do achieve MRD-, they go onto Rev maintenance. So far N=81 have been enrolled. MRD- at the end of induction is 40%, SCT is 73%, and Consolidation is 82% but these are at 10^{-5}. MRD at 10^{-6} is being explored and so far shows 27%, 47% and 63% at those same points. So far 26 pts have reached confirmed MRD- and of those tested, 17 of 17 are also PET-CT negative. This highly significant clinical trial is designed to safely get myeloma patients off of continuous therapy, something we would all like to achieve. {Mon-**860**- L Costa}

NEW DRUGS

35. In a Phase 1b trial Dr. Amrita Krishna provided early results from Takeda's new drug called TAK-079, an anti-CD-38 mAb (like Dara and Isatuximab). For N=34 pts with dosages varying from 45mg-1200mg, the final dosage will likely be either 300mg but more likely 600mg with overall response rates of 33% and 56% respectively, and 21% of these patients had prior Dara. An interesting difference between this anti-CD-38 mAB compared to Dara and Isatuximab is that it is an IGG **lambda** immunoglobulin molecule, whereas Dara and Isa are IGG **kappa** immunoglobulin molecules. Perhaps this may influence its effectiveness, such as maybe working on patients who relapsed on Dara or Isa." {Sat-**140**-A Krishnan}

36. Dr. Luciano Costa presented the first clinical study of a Celgene (now BMS) product CC-93269 that combines BCMA with a T-cell Engager CD3 and is a two-hour IV infusion. For N=12 getting >= 6mg, 89% achieved ORR with 44% CR/sCR. ASE's included ¾ of pts experiencing CRS, mostly in first or second dose but managed with steroids or Tocilizumab. {Sat-**143**-L Costa}

37. I wasn't able to attend this talk about CLR 131, a radiotherapeutic designed to deliver cytotoxic radiation to selective cancer cells via a half-hour IV. For N=16 heavily previously treatment MM pts, 8 achieved PR and the rest achieve minimal/stable disease. {Sat-**144**-S Ailawadhi}

38. AMG 701 is a BiTE® (bispecific T-cell engager) targeting BCMA with a significantly extended half-life which has hopefully replaced Amgen 420, a similar product but one which requires continuous infusion over 4 weeks. AMG 701 is given weekly as short-term infusions. This study, which I didn't not attend, was "pre-clinical" but we'll be watching this drug closely based on the initial successful responses from AMG 420. {Sat-**135**-YT Tai}

39. Venetoclax continued to show efficacy in t(11;14) RRMM pts in 2 talks. I wasn't able to attend either but Ven+Dara+dex showed 92% ORR. In the other study Ven+dex for N=51 resulted in over 50% ORR for varying dosages. {Mon-**925**-N Bahlis}{Mon-**926**-J Kaufman}

CAR-T STUDIES, ALL PTS RRMM, ALL TARGETING BCMA UNLESS NOTED

40. China presented LCAR-B38M updated findings of their Legend-2 for 57 pts with 25 month follow-up. Prior median LOT = 3, CRS = 90% but mostly Grades 1 or 2. CR=74% (88% ORR) and MRD- = 93% (10^{-5}). Median PFS = 20 mos (CR pts, mPFS = 28 mos). Med OS = 36 mos (CR pts, mOS = NR). Presenter spoke of one of his pts with 5 prior lines at 39 mos PFS. {Mon-**579**-BY Wang}

41. Janssen reported on their early results of CARTITUDE-1, a study of JNJ-4528, a licensed product of Legend-2 (see above). So far for N=29, median LOT=3, they have similar results to above: All but 2 pts had CRS occurring 2-12 days post-infusion. 100% of patients were MRD-, but at different rates ranging from 10^{-4} to 10^{-6}. ORR was a rather astounding100% (CR 69%) for target $75x10^{6}$ dosage, so findings so far are consistent with Legend-2. Four pts had extramedullary disease and 2 of these pts were among the pts who relapsed, including one who died from G5 CRS. The results were so impressive that Dr. Madduri momentarily stopped her talk and asked the audience to look and think about the 100% response graph she was presenting. {Mon-**577**-D Madduri}

42. Another China study for N=29 pt, prior median LOT = 3 examined results for sequential CD-19 and BCMA CAR-T treatments. It showed 85% ORR (although 3 relapsed), mPFS 16 mos, 2yrOS at 56%, and one-third pts MRD- at 10^{-6}. {Mon-**578**-L Yan}

43. And yet another study from China for CT103A presented results from a fully human BCMA CAR-T in N=18 pts with >= 3 LOT. Early data showed ORR=100% and CR/sCR=68%. One pt had this CAR-T after relapsing from a murine (mouse derived) CAR-T and is doing well. The goal of this "human" CAR-T is better safety while similar efficiency at a lower dosage, although all pts still experienced CRS, mostly G1-2. The first patient treated has experienced about 1 yr of cell persistence. {Mon-**582**-C Li}

44. Since BCMA CAR-T's have generally had short PFS, another group from China created a "bi-specific" CAR-T, targeting both BCMA and CD38 (the latter being the same cancer cell surface antigen targeted by Dara), referred to as BM38 CAR-T cells. The abstract reported that for N=16, 14 achieved ORR and 8 (50%) reached sCR. CRS was seen in 14 of 16 pts but only 4 of those >= Grade 3 and these were resolved with tocilizumab. {Mon-**930**-H Mei}

45. I didn't attend a talk to update the results of bb21217 enriched for memory T cells, specifically designed to sustain CAR-T cell persistence with N=38 ORR = 83%. {Mon-**927**-J Berdeja}

OTHER RESULTS

46. This study examined outcomes in MM based on comorbidities and race. It noted that Blacks are less likely to have an SCT than Whites; however with treatment access at the VA, they actually do better (hazard ratio=.79). And on average, Blacks are dx'd 3 yrs younger than Whites (66 vs 69). It's also important to note that clinicians might misperceive kidney involvement due to higher reference creatinine levels for Blacks, which could mean holding back treatment with Rev, which is excreted though the kidneys. This highlights the importance of including all races in clinical trials. {Sun-**383**-M Schoen}

47. This study showed that there was no difference in OS between Medicare and private insurance for MM pts getting transplants. {Sun-**424**-G Ravi}

48. This study showed the importance of having both MRD- and PET-CT- rather than only one. In the Cassiopeia study (VTd +/- Dara), "double negativity" confirmed better PFS in both arms as well as better PFS in the Dara over non-Dara arm. Longer follow-up may result in both methods being used as a predictive surrogate marker. {Mon-692-P Moreau}

49. Primary Plasma Cell Leukemia is a very serious disease and I don't remember seeing trials for either this or secondary PCL because it's also rare. This Ph 2 study (N=21) showed that KRd can induce deep responses after 4 cycles with ORR 93% (CR=33%, VGPR= 47%). However 14 of 21 pts experienced serious adverse events (toxicity G3=20% and G4= 27%) during the first 6 mos, many during the first cycle but these were managed. Note, if a pt comes in with CNS involvement, Pom which crosses the blood brain barrier, should be considered instead of Rev. {Mon-693-N Van De Donk}

50. This study provided a PFS analysis of Denosumab (Xgeva) vs Zoledronic Acid (Zometa) for N=930 MM pts planning to get an SCT. Previously Denosumab showed a med PFS benefits of 10.7 mos and this study showed a similar med PFS benefit of 10.4 mos (46.1 vs 35.7 mos) for pts intending to get an SCT. While this favors Denosumab, one needs to consider the "rebound effect" after stopping Dmab – the increased risk of osteoporosis, so some recommend using Zometa to prevent. Plus there's the higher cost of Dmab. {Mon-606-E Terpos}

SUMMARY

This year's ASH continued to amaze me with so many studies in Myeloma, focusing on all stages from Smoldering Myeloma to MM Induction through Relapse. While some years at ASH are focused on the usage of newly approved drugs, this past year only had one approval Selinexor for a limited audience. Rather, the importance of this year's ASH is that we have another year of results in different area of myeloma treatment from HR SMM pts to Induction therapies for newly diagnosed to Immune Therapies initially being tested for RR MM pts. For HR SMM patients we've seen results of Rev or Rev-dex to delay progression and are now starting to see early outcomes for "curative" intense treatments. For induction, we're seeing more and more combinations including Dara, which results in better responses. It seems we're not far away when 4 drugs become the standard initial regimen.

And for RR MM patients, we have more trial readouts for Immune Therapies such as CAR-T, ADC (Antibody Drug Conjugates), Bi-Specific T-Cell Engagers (more focus on AMG-701 with easier administration) and naked mAb's (TAK-079, Isatuximab). Look at all the new drugs and CAR-T trials with another year's worth of updates, especially the N (number of patients involved). Results are early and these trials need larger patient numbers, better understanding of dosages, longer follow-up, and perhaps better prognosis assessment tools (see CAR-T). While we patients are anxious for approval of this treatment, I think back to SCT's for Myeloma which were first tried in 1984 but not approved until the early 1990's. However, there continues to be an incredible interest by researcher and clinicians to find better Myeloma treatments, and it is likely that CAR-T treatment will progress just as SCT progressed. Soon we'll be learning if earlier treatment in the SMM stage can delay progression to MM and even a possible cure for some. And soon MRD, an excellent prognostic measurement, will hopefully be used to help guide treatment decisions.

For someone diagnosed with stage III MM 25 years ago with only 2 treatment options available (MP or VAD-SCT) and given 2-3 years expected survival, I've seen incredible progress since 2003 when Velcade was first approved. While there continues to be unanswered questions, we now have many more effective treatments for MM, providing patients with better opportunities to manage their disease.

GLOSSARY (according to Jack)

Drug (brand names) by Drug Class/Category

IMID – Immunomodulary Drug
T – Thalidomide
R – (Lenalidomide) Revlimid
Pom – Pomalidomide (Pomalyst)

PI – Proteasome Inhibitor
V- Velcade (Bortezomib)
Cfz, K – Carfilzomib (Kyprolis)
I, Ixa – Ixazomib (Ninlaro)

mAb – Monocloncal Antibody
D, Dara – Daratumumab (Darzalex)
E, Elo – Elotuzumab (Empliciti)
Isa – Isatuximab (SAR650984)

HDAC - histone deacetylase inhibitors
Pano – Panobinostat (Farydak)

Nuclear Export Inhibitor
S, Sel- Selinexor (Xpovio)

Steroids
P – Prednisone
D or d - Dexamethasone

Chemotherapy Drugs
C – Cyclophosphamide (Cytoxan)
M – Melphalan

Treatment Measurements
EFS – Event-free Survival
ORR – Overall response (>=PR)
OS – Overall Survival
PD – Progressive Disease
PFS – Progression-free Survival
PFS2 – PFS + next-line treatment PFS
TTP - Time to Progression
TTR - Time to Respond

Treatment Response
CR – Complete Response: No sign of MM (0 M-spike)
nCR – Near CR (positive M-spike, may be same as VGPR)
MR – Marginal Response: 0-50% reduction in MM
PR- Partial Response: 50% reduction in MM
SD – Stable Disease i.e. no response but also not worse
sCR-Stringent CR: CR+ normal FLC & no clonal cells
VGPR – 90% reduction in MM
MRD – Minimum Residual Disease typically by Flow Cytometry (NGF) or DNA sequencing (NGS) to provide more sensitive measure of MM (e.g. 10^{-5} or 10^{-6})

Side Effects
AE (ASE) – Adverse Event (Adverse Side Effects)
DVT - Deep Vein Thrombosis (blood clots)
MTD – Maximum Tolerated Dose
ONJ – Osteonecrosis of the Jaw
PE – Pulmonary Embolism
PN – Peripheral Neuropathy
QOL – Quality Of Life
VTE - Venous Thromboembolism (PE + DVT)
CRS – Cytokine Release Syndrome

Tests/When to treat?/Other
CRAB – High Calcium, Renal, Anemia, and Bone…
CRABi – CRAB + "i" increased infections
FLC – Free Light Chain

SCT – Auto stem cell transplant.
TE, NTE – Transplant Eligible of Not TE

LOT – Lines of Therapy

ND – Newly Diagnosed
RR – Relapsed/Refractory

ADC - Antibody Drug Conjugate
BiTE – Bi-specific T-Cell Engager

"d" and "D" – Typically both mean Low-dose Dex (40 mg/week) these days
MGUS – Monoclonal Gammopathy of Undetermined Significance
SMM – Smoldering MM
Pt(s) – Patient(s)
n - Number of pts
R/R- Relapsed/Refractory, Ref defined progressing while on Tx or within 60 days.
HR – High Risk