# Maturing data from the Australia and New Zealand Myeloma and Related Diseases Registry

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## Background

Multiple myeloma (MM) is associated with a high community burden of disease. The Australia and New Zealand Myeloma and Related Diseases Registry was established in 2012 to explore epidemiology, practice variation in diagnosis and management, and clinical outcomes.

## Methods

All patients registered from 21 Jan 2013 to 31 Dec 2016 were included. Patient baseline characteristics, diagnosis, therapy and outcomes were assessed. Time to survival and disease progression were estimated using survival analysis. Relapsed patients were defined as those that had completed at least one line of therapy and had then progressed.
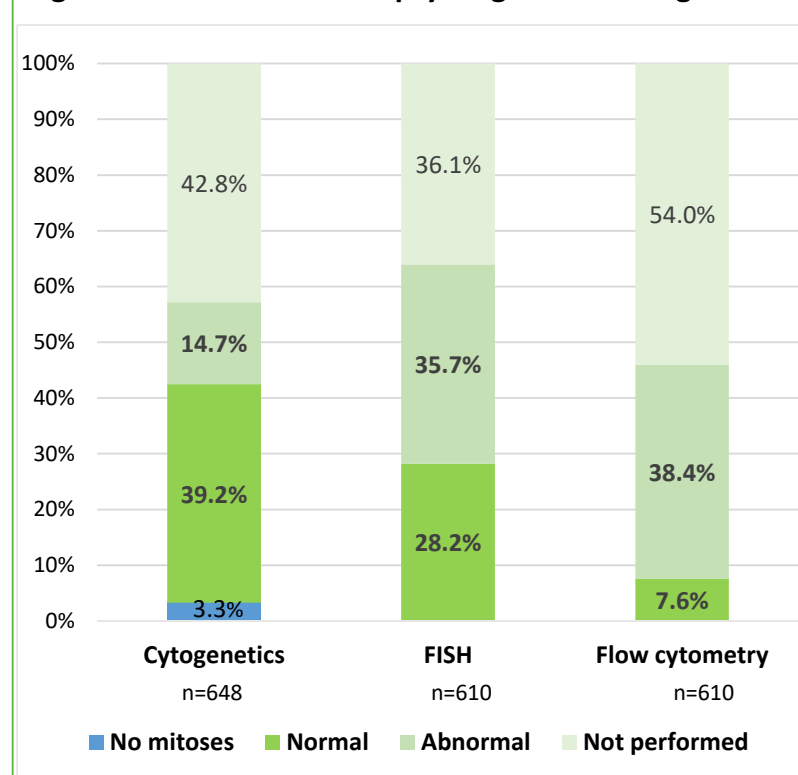
## Results

In total, 1422 patients were registered. Fewer than 10 patients have opted off the registry since its inception. Of 1254 pts with diagnosis, 865 patients (68%) had MM and 61% were male. Mean age at diagnosis was 66y, with 35% over 70y. Table 1, 2 and Figure 1 explore patient characteristics, outcomes, treatment and response.

Table 1.

| Diagnosis: all patients (n=1254) | % of n, median | |
| --- | --- | --- |
| Multiple myeloma | 68.3% | |
| Plasmacytoma | 0.6% | |
| Plasma cell leukaemia | 0.7% | |
| MGUS | 30.4% | |
| **MM patient characteristics (n=865)** | **% of n, mean** | |
| Male | 61% | |
| Age > 70y | 35% | |
| Mean age | 66y | |
| High risk* | 34% | |
| CRAB: any combination | 67% | |
| - Bone lesions | 55% | |
| - Anaemia | 23% | |
| - Renal impairment | 8% | |
| - Hypercalcaemia | 6% | |
| ECOG ≥ grade 2 | 22% | n=568 |
| ISS=3 | 30% | n=578 |
| Clinical trial participants | 7% | n=722 |
| ≤ 70y with ASCT | 61% | n=443 |
| > 70y with ASCT | 2% | n=306 |
| ASCT not planned due to age | 24% | n=533 |
| **MM outcomes** | **median** | |
| Progression free survival | 30.1 m | n=514 |
| Survival | 75% alive at 3y | n=531 |
| Time: diagnosis to Rx | 21 d (9-39) | n=722 |
| Time: diagnosis to ASCT | 6.4 m (5.2-8.2) | n=277 |

*taking into account FISH, ISS, LDH, cytogenetics

**Figure 1. Bone marrow biopsy diagnostic testing results**



| | Cytogenetics n=648 | FISH n=610 | Flow cytometry n=610 |
| --- | --- | --- | --- |
| No mitoses | 3.3% | | |
| Normal | 39.2% | 28.2% | 7.6% |
| Abnormal | 14.7% | 35.7% | 38.4% |
| Not performed | 42.8% | 36.1% | 54.0% |

## Conclusion

'Real world' myeloma data are scarce internationally and in Australia and New Zealand (ANZ). Most patients are treated with bortezomib-based first-line therapy and immunomodulatory drugs for second-line therapy in ANZ. Few patients were enrolled in clinical trials. Maturing registry data can describe the epidemiology, treatment, and outcomes in MM and help inform future clinical management and research.

Table 2.

| Treatment & response | % of N | N |
| --- | --- | --- |
| **First-line chemotherapy** | | |
| Bortezomib-based | 86% | 772 |
| Immunomodulatory drug | 10% | 772 |
| Both Bz' & 'Imid' | 1% | 772 |
| Pts not for ASCT, Bz-based | 94% | 54 |
| Overall response rate (ORR, ≥PR) | 84% | 514 |
| **2nd-line chemotherapy** | | |
| Bz-based | 39% | 228 |
| Immunomodulatory drug | 68% | 228 |
| Both | 25% | 228 |
| **Relapsed & refractory patients** | | |
| 1st line Bz-based | 87% | 145 |
| 1st line immunomodulatory drug | 10% | 145 |
| 2nd line Bz-based | 19% | 103 |
| 2nd line immunomodulatory drug | 74% | 103 |

*Bz=bortezomib, PR= partial response

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