MYLORD

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Evolution of dara-based regimens use along treatment lines from 2016 to 2019: a real-life study based on the French national claim database

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Background

The overall treatment strategy of multiple myeloma (MM) has strongly evolved over the past years with the introduction of innovative agents such as daratumumab.

The MYLORD cohort, based on the nationwide French NHI databases (called SNDS), provides an overview of the evolution over time of daratumumab-based regimens use in real-life settings in France since the availability of commercial product:

- April 2016: D mono reimbursed for the treatment of adult patients with relapsed and refractory multiple myeloma, whose prior therapy included a proteasome inhibitor and an immunomodulatory agent and who have demonstrated disease progression on the last therapy.
- June 2019: DRd/DVd reimbursed for the treatment of adult patients with multiple myeloma who have received at least one prior therapy

Method

Cohort identification

This retrospective observational cohort study includes MM treated patients identified from 2014 to 2019 through the SNDS (databases which gather hospital records, primary and secondary care, as well as death records for 66 million people). Adult patients affiliated to the General health insurance Scheme (covering around 76% of the French population) were detected using a validated algorithm which was expanded to consider recent evolutions of MM therapeutic management. [1,2].

Treatment lines algorithm

Treatment lines were re-constructed through ATLAS, a published AI algorithm adapted from the Smith-Waterman alignment sequence[3,4]. This innovative algorithm gave the temporal flexibility needed to identify lines considering the deviations between theoretical regimens and patients claim data.

Statistical analysis

For each year (2016-2019) and for each line, the number and percentage of patients initiating a daratumumab-based regimen was assessed and regimen detailed. Time to next treatment (TTNT) for each line have been estimated with a Kaplan Meier method.

Conclusion

The study demonstrates the rapid integration of daratumumab in the treatment management of MM patients, from late relapse to earlier treatment lines over years. More and more patients are treated with dara-based regimens, including triplets, which is consistent with the evolution of approved indications and reimbursement in France.

The MYLORD study will be updated with SNDS data from 2020 and 2021 as available, which will provide further insight to follow the use of dara-based regimen in first line.

Real-world data appear as a powerful tool to study treatment lines and evolution of therapeutic management at a national scale.

Number of identified patients

receiving a dara-based regimen

40,747 prevalent patients treated for a MM (2014 - 2019) → ATLAS → **36,241** had lines identified through ATLAS algorithm → **3,819** received at least one treatment line with daratumumab between 2016 and 2019

Repartition by line of dara-based regimens

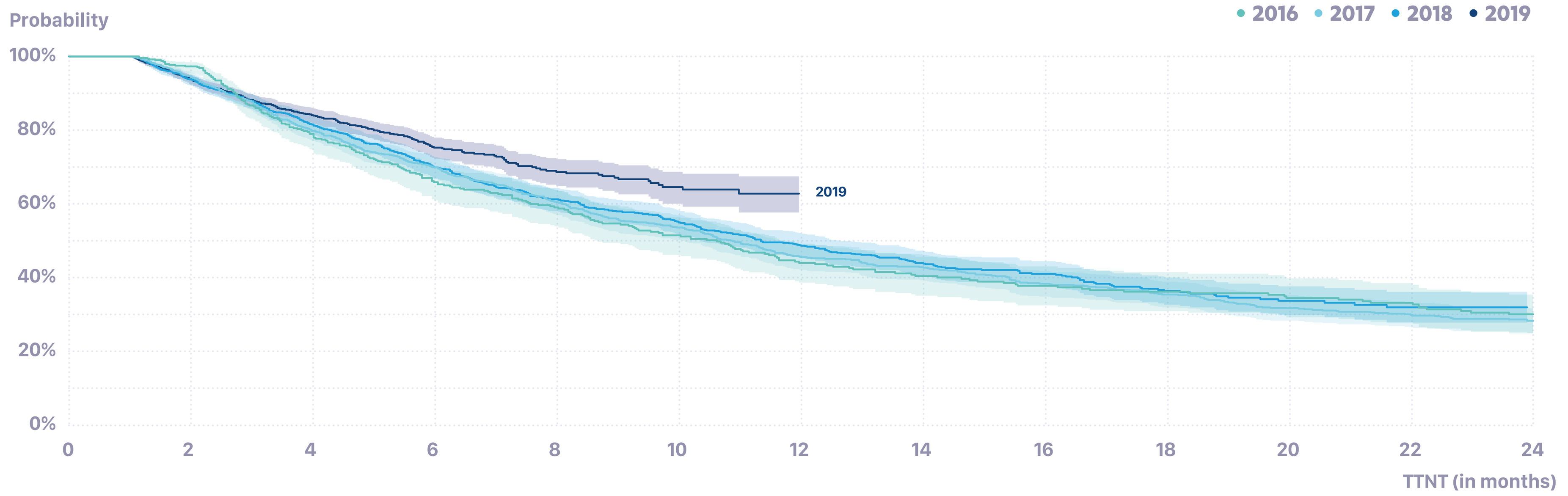
initiated in France from 2016 to 2019 according to the line of treatment

	2016	2017	2018	2019
Number of Dara-based regimens	505 regimens	999 regimens	1,074 regimens	1,754 regimens
L1	1%	1%	2%	2%
L2	7%	14%	19%	31%
L3	15%	20%	24%	25%
L4+	77%	65%	55%	42%

Time to next treatment of dara-based regimens

according to the year of initiation

Year of initiation • 2016 • 2017 • 2018 • 2019



Description and proportion of each dara-based regimen

initiated in France, among all regimens initiated the same year, for the same line

L1	2016	2017	2018	2019
All regimens*	3,852 regimens	4,088 regimens	4,170 regimens	3,889 regimens
Dara-based regimens	0.1%	0.5%	0.9%	1.0%

L2	2016	2017	2018	2019
All regimens*	2,220 regimens	2,308 regimens	2,447 regimens	2,444 regimens
Dara-based regimens	2%	6%	8%	23%
D mono	1%	3%	4%	6%
DPd	0.1%	1%	1%	1%
DRd	0.2%	2%	3%	13%
DVd	0.1%	1%	1%	2%

L3	2016	2017	2018	2019
All regimens*	1,307 regimens	1,346 regimens	1,375 regimens	1,526 regimens
Dara-based regimens	6%	15%	19%	29%
D mono	5%	9%	11%	13%
DPd	1%	2%	4%	4%
DRd	0.4%	1%	2%	7%
DVd	0.2%	2%	1%	5%

L4+	2016	2017	2018	2019
All regimens*	1,654 regimens	1,878 regimens	1,995 regimens	2,355 regimens
Dara-based regimens	24%	34%	30%	31%
D mono	21%	25%	18%	14%
DPd	1%	4%	4%	5%
DRd	1%	3%	4%	6%
DVd	1%	3%	3%	6%

*Total number of regimens initiated per year

Glossary

AI: Artificial Intelligence
ATLAS: Analysis of Treatment Lines using Alignment of Sequences
MYLORD: Multiple mYeloma: an epidemioLOgical study using SNIIRAM Database
MM: Multiple Myeloma
NHI: National Health Insurance
SNDS: Système National des Données de Santé
TTNT: Time To Next Treatment

References

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Disclosure

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