

# PATTERNS OF USE OF b/tsDMARDS AND OTHER MEDICATIONS FOR PATIENTS WITH RHEUMATOID ARTHRITIS: A RETROSPECTIVE STUDY USING PBS DATA

Jing Ye,<sup>1</sup> Andrew Marson,<sup>1</sup> Premarani Sinnathurai,<sup>1,2,3</sup> Lisa Pulver,<sup>1,4</sup> Claire Barrett,<sup>5,6</sup> Catherine Hill,<sup>7,8</sup> Debra Rowett,<sup>9,10</sup> Denise O'Connor,<sup>11,12</sup> Jessica Sheppard,<sup>1</sup> Jonathan Dartnell<sup>1</sup>

<sup>1</sup>NPS MedicineWise, <sup>2</sup>Institute of Bone and Joint Research, University of Sydney, NSW Australia, <sup>3</sup>Department of Rheumatology, Royal North Shore Hospital, NSW Australia, <sup>4</sup>Council of Australian Therapeutic Advisory Groups, <sup>5</sup>Redcliffe Hospital, QLD Australia, <sup>6</sup>Discipline of Medicine, University of Queensland, QLD Australia, <sup>7</sup>The Queen Elizabeth Hospital, SA Australia, <sup>8</sup>University of Adelaide, SA Australia, <sup>9</sup>UniSA Clinical and Health Science, University of South Australia, SA Australia, <sup>10</sup>Drug and Therapeutics Information Service, SALHN, SA Australia, <sup>11</sup>Cabrini Institute, VIC Australia, <sup>12</sup>Monash University, VIC Australia

## Aims

- ▶ To describe prescribing patterns for biological/targeted synthetic disease-modifying antirheumatic drugs (b/tsDMARDs) for rheumatoid arthritis (RA) in Australia.
- ▶ To analyse conventional synthetic (cs)DMARDs, opioid and glucocorticoid prescribing for patients with RA to support quality use of medicines.

## Methods

- ▶ Pharmaceutical Benefits Scheme (PBS) dispensing data from Services Australia (1/1/16-31/12/19) were analysed to develop a national aggregated data report for rheumatologists and immunologists.
- ▶ Prescribing patterns of b/tsDMARDs available on the PBS for RA were described.
- ▶ Prescribing of commonly used csDMARDs prior to, and prescription of glucocorticoids and opioids after, b/tsDMARD initiation were described.
- ▶ Individualised feedback reports were produced for prescribers, presenting their prescribing patterns and best practice guidance for personal reflection to support practice improvement.

## Conclusions

- ▶ The number of patients prescribed b/tsDMARDs for RA is increasing.
- ▶ TNF inhibitors remain the most frequently prescribed b/tsDMARDs.
- ▶ Rates of subcutaneous methotrexate prescribing remain low.
- ▶ Many patients continue to receive glucocorticoid and opioid prescriptions after starting b/tsDMARD therapy.
- ▶ There may be opportunities for practice improvement in partnership with patients and general practitioners.

## Acknowledgments

This study was funded by the Australian Government Department of Health through the Value in Prescribing – bDMARDs Program Grant. The authors acknowledge the assistance provided by the Targeted Therapies Alliance in reviewing the abstract and poster.



For more information, visit [www.nps.org.au/pbs-bdmards](http://www.nps.org.au/pbs-bdmards)

<sup>1</sup>The data provided from Services Australia reflect the date the prescription was dispensed, and do not reflect the duration of use of the medicine by the patient

## Results

- ▶ 448 rheumatologists and immunologists were provided with individual reports.

### b/tsDMARD and csDMARD prescribing patterns<sup>1</sup>

- ▶ The number of patients prescribed b/tsDMARDs for RA in Australia increased from 27856 in 2016, to 40375 in 2019 (Figure 1).
- ▶ Between 1/1/18 and 31/12/19, 11243 patients commenced treatment with a b/tsDMARD; 87% were previously prescribed methotrexate (10% subcutaneous), 56% hydroxychloroquine, 34% leflunomide, and 30% sulfasalazine.
- ▶ Tumour necrosis factor (TNF) inhibitors were the most frequently prescribed first-choice b/tsDMARD (64%) (Figure 2).

Figure 1. Number of patients dispensed prescriptions for b/tsDMARDs for RA in Australia (2016–2019)

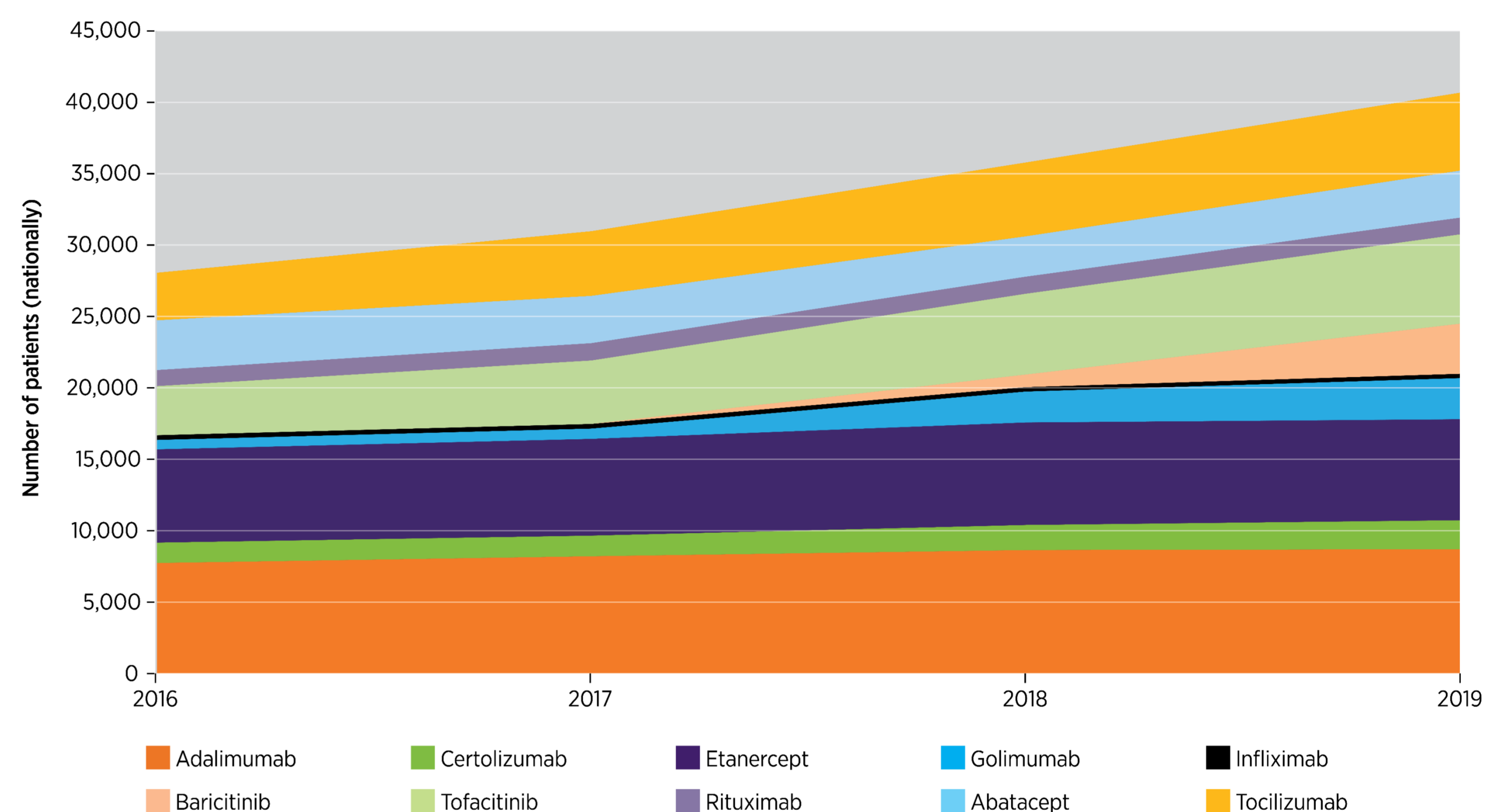
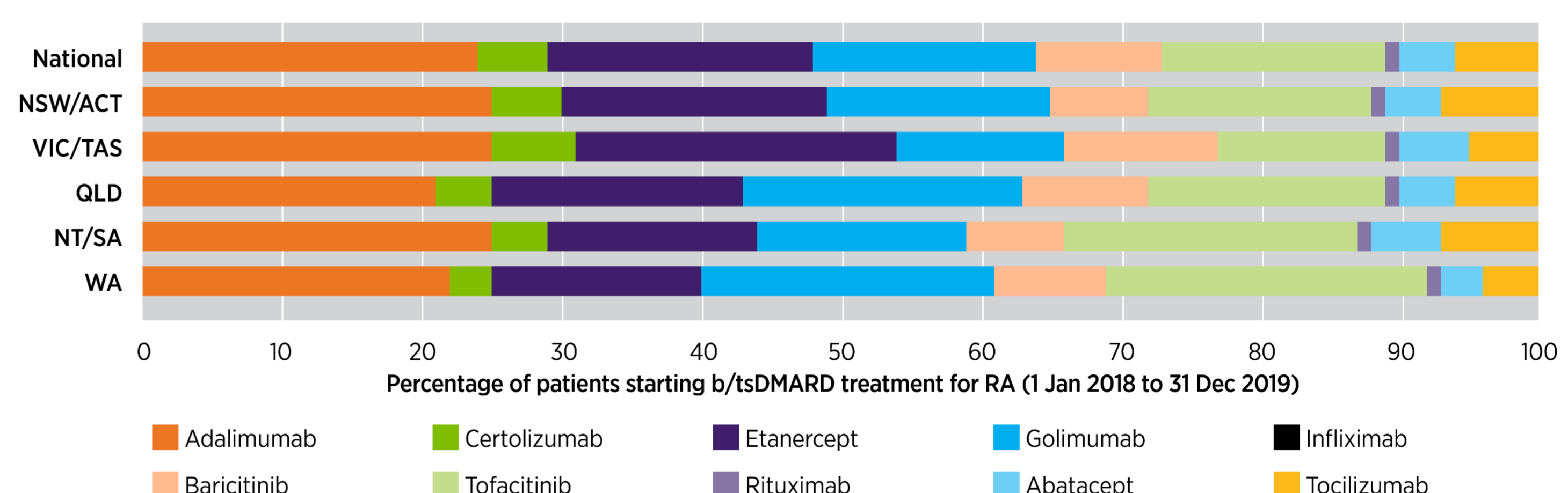


Figure 2. Choice of first-line b/tsDMARD treatment for patients with RA in Australia



### Glucocorticoid and opioid prescribing<sup>1</sup>

- ▶ Approximately 50% of patients were prescribed glucocorticoids by any prescriber ≥ 6 months after starting b/tsDMARD treatment between 1/11/16 and 31/10/18 (Figure 3).
- ▶ Between 1/1/18 and 31/12/19, 43169 patients were prescribed a b/tsDMARD, 48% were also prescribed opioids by any provider (Figure 4).

Figure 3. Prescribing of glucocorticoids ≥ 6 months after starting a b/tsDMARD treatment for RA

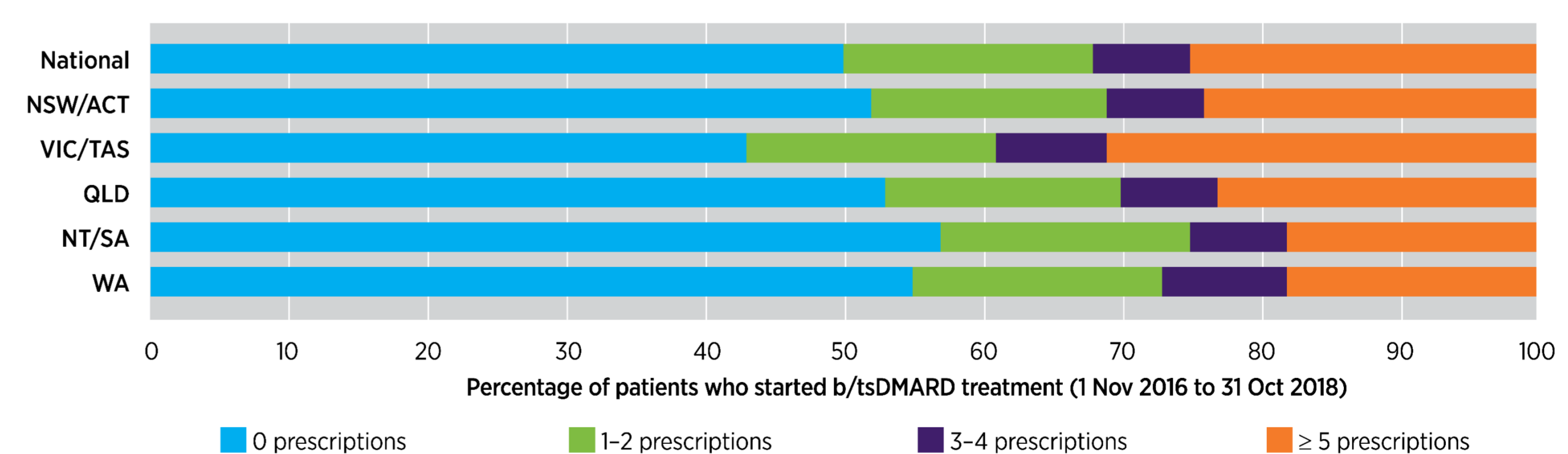
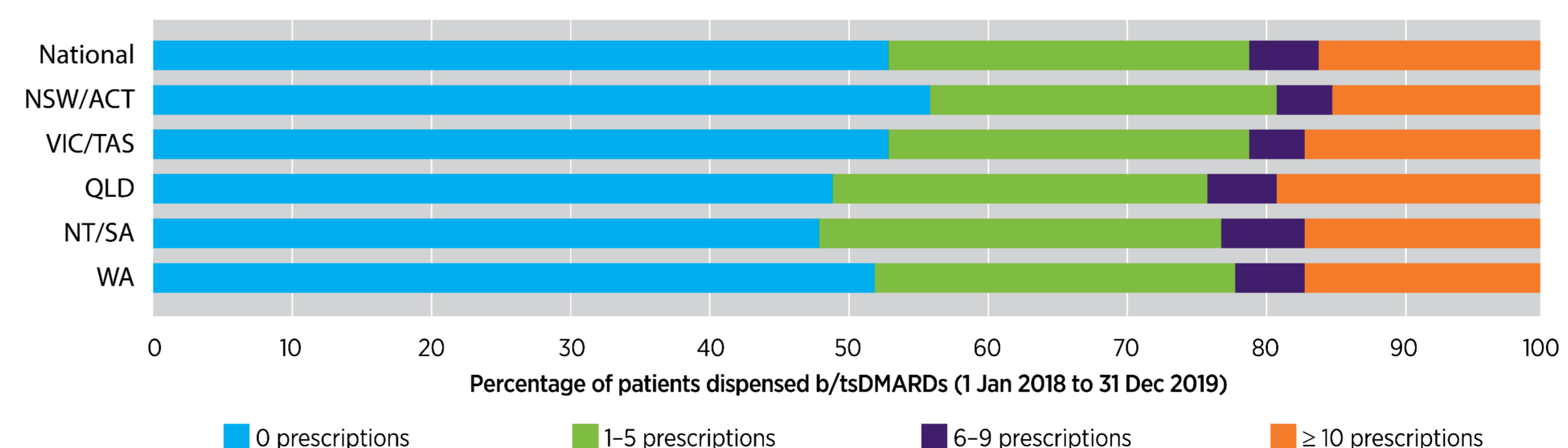


Figure 4. Prescribing of opioids for patients also prescribed a b/tsDMARD for RA



### + TARGETED THERAPIES ALLIANCE

Helping consumers and health professionals make safe and wise therapeutic decisions about biological disease-modifying antirheumatic drugs (bDMARDs) and other specialised medicines. Funded by the Australian Government Department of Health through the Value in Prescribing bDMARDs Program Grant.

