

Authors: Wang Weiming¹, Li Runqin², Li Ping², Gao Fei², Serge Smeets³, Aneesh Thomas George⁴, Jonathan de Courcy⁵

Affiliations: ¹Shanghai Ruijin Hospital, Shanghai Jiao Tong University School of Medicine, Shanghai, China; ²Beijing Novartis Pharma, China; ³Novartis Pharma AG, Basel, Switzerland; ⁴Novartis Healthcare Pvt Ltd, Hyderabad, India; ⁵Adelphi Real World, Bollington, England, United Kingdom.

① Introduction:

- Immunoglobulin A nephropathy (IgAN) accounts for more than 50% of primary glomerulonephritis according to the analysis of biopsy-proven cases in China¹. The primary focus of IgAN treatment should be slow or stop a progression to kidney failure. The aim of the real-world study is to describe the treatment strategy for patients with IgAN in China.

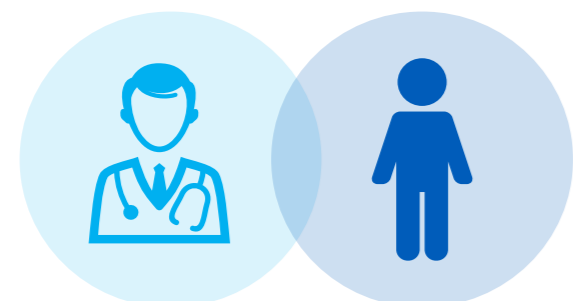
② Methods:

- From June to October 2021, the study collected data from the Adelphi Real-world IgAN Disease-Specific Programme in multiple countries including China, Japan, United States (US), and five countries in Europe, namely France, Germany, Italy, Spain, and United Kingdom. Nephrologists completed forms for consecutive patients with IgAN. The forms included demographic and clinical information including signs, symptoms and lab values. However, the sample collection still resulted in certain limitations, as it's not a truly random sample of patients.

③ Results:

- 60 nephrologists of China completed a structured online record for identified patients 587 IgAN patients.

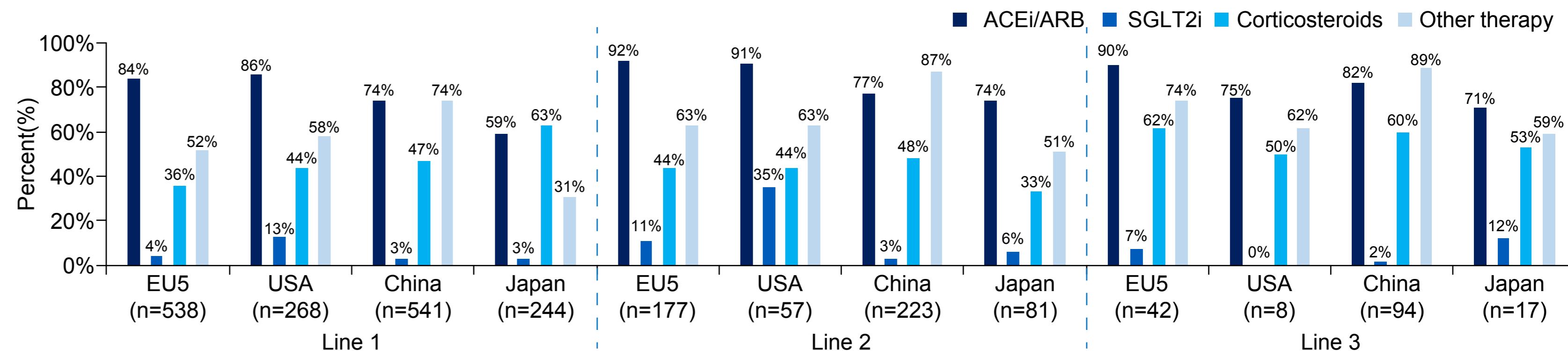
nephrologists
N=60



IgAN patients
N=587

- Chinese nephrologists prescribed ACEi/ARB, SGLT2i, corticosteroids and other therapy (Cyclophosphamide, Cyclosporin, Hydroxychloroquine, Mycophenolate mofetil et al) for IgAN, the proportion of different lines of treatments was shown (Fig 1).
- ACEi/ARB was most commonly used as first-line regimen and would continue to be used in the subsequent lines. Compared with EU5 and US, the proportion of ACEi/ARB use at first line was lower in Asia, and in China was 74%.

Fig 1. Treatment strategies adopted by nephrologists between different line treatments*



*Line: A line change was determined by a change in treatment (add/stop/switch of a drug), defined by the nephrologists. The exact treatment changes are not defined in this study.

- Chinese nephrologists would not prescribe with the maximally tolerated doses, as 93% of patients responded to the current dose.
- Almost half (47%) of the Chinese patients used corticosteroids, and rank the highest proportion among the four regions.
- A patient's condition improved or the course of treatment was completed, corticosteroids would be stopped considering the side effects, of which the top three reported by nephrologists were weight gain (51%), acne (43%) and insomnia (30%).
- The proportion of other therapies, whether first-, second- or third-line treatments, was much higher in China than in other countries (74%, 87% and 89%).
- Although nephrologists tried different lines of treatment, the proteinuria and eGFR levels were still not well controlled (Table 1).

Table 1. Mean proteinuria and eGFR levels in patients with different line treatments

| | Number | Levels of proteinuria (g/day) | Number | eGFR (mL/min/1.73m ² /year) |
|--------|--------|-------------------------------|--------|--|
| Line 1 | 430 | 2.1 | 402 | 85.1 |
| Line 2 | 177 | 1.8 | 170 | 77.4 |
| Line 3 | 75 | 1.8 | 75 | 71.8 |
| Line 4 | 24 | 1.9 | 23 | 59.1 |
| Line 5 | 6 | 1.4 | 6 | 43.3 |

④ Conclusion:

- Despite attempts to alter various therapeutic regimens, IgAN remained poorly controlled such as proteinuria greater than 1g/day and eGFR decrease continuously. These data highlight an unmet need for the development of more effective drugs to treat and mitigate disease progression.

⑤ Disclosures

- The authors have no disclosures or conflicts of interest to report.

⑥ References

- Jin-Hua Hou, et al. Kidney Dis (Basel). 2018; 4(1): 10-19.