

## Care Gaps and Barriers to Guideline-Based Management of Glomerulonephritis: A Survey of Nephrologists

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**BACKGROUND:** There is substantial variability in the treatment of glomerulonephritis (GN) that contributes to poor patient outcomes and historically may be due to a lack of accepted guidelines. As such, we sought to better understand the need for and barriers to knowledge translation (KT) of the recent KDIGO GN guidelines into clinical practice.

**METHODS:** We surveyed nephrologists in British Columbia, Canada, using a 40 question survey addressing physician characteristics, GN exposure, care gaps, barriers to guideline use and support for a regional GN registry.

**RESULTS:** The response rate was 64% (47 of 73 nephrologists). Biannually a median of 6 (IQR 5,10) new cases of idiopathic GN are seen per physician, which is similar in urban vs rural and academic vs private practices. Self-reported treatment of GN is shown in the table. Most treat ANCA and membranous GN as per KDIGO guidelines; however 19% treat FSGS and 2g/d proteinuria with immunosuppression and only 56% treat FSGS and 5g/d proteinuria with prednisone (less often in those with >15 vs fewer years in practices, 21% vs 64-73% p=0.03). Over 90% feel that standardized care tools would improve patient care yet they are available to only 19-27%. Patient education tools and decision support are unavailable to 93% and 57%. Insurance for immune therapies is poorly accessible to 86% yet 98% feel this would improve care. Almost all physicians support a regional GN registry that would provide achievable benchmarks in GN clinical care.

| Immune Therapies   |                   |                  |                       |                  |                     |
|--|-------------------|------------------|-----------------------|------------------|---------------------|
|  | No Immune Therapy | Prednisone Alone | Calcineurin inhibitor | Cyclophosphamide | Azathioprine or MMF |
| MN with 8g/day   | 2%                | 0%               | 33%                   | 63%              | 2%                  |
| FSGS with 5g/day   | 7%                | 56%              | 27%                   | 11%              | 0%                  |
| FSGS with 2g/day   | 81%               | 14%              | 5%                    | 0%               | 0%                  |
| Conservative Management                                      |                   |                  |                       |                  |                     |
|  | Never             | Rarely           | Some of the time      | Most of the time | All of the time     |
| ACEI to reduce proteinuria                                   | 0%                | 0%               | 0%                    | 35%              | 65%                 |
| Combination RAS blockade to reduce proteinuria               | 23%               | 42%              | 30%                   | 5%               | 0%                  |
| Calcium / Vit D to prevent osteoporosis in those on steroids | 0%                | 2%               | 5%                    | 23%              | 70%                 |
| Bisphosphonates to prevent osteoporosis in those on steroids | 5%                | 16%              | 44%                   | 28%              | 7%                  |
| PCP prophylaxis in those on high dose immunosuppression      | 0%                | 2%               | 0%                    | 49%              | 49%                 |

**CONCLUSIONS:** We describe significant care gaps in the management of GN, emphasizing the need to promote KT of the GN guidelines. We identify barriers to guideline implementation and physician support for initiatives that address these barriers potentially improving patient outcomes.