

Understanding patient perspectives of the impact of anaemia in chronic kidney disease: A United States patient survey

Susan Grandy¹, Eirini Palaka², Nicolas Guzman³, Alicia Dunn³, Eric Wittbrodt⁴, and Fredric Finkelstein⁵

¹AstraZeneca Pharmaceuticals LP

²AstraZeneca Ltd

³Astrazeneca

⁴AstraZeneca

⁵Yale University

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Abstract

Background Anaemia, a common complication of chronic kidney disease (CKD), is associated with reduced health-related quality of life and physical functioning. This study investigated the knowledge, perceptions and awareness of anaemia in patients with CKD in the United States. **Methods** Between 29 August and 17 September 2018, an online survey was administered to consenting patients in the United States aged [?] 18 years with self-reported CKD, with or without anaemia; patients with cancer were excluded. The survey comprised 27 questions, exploring anaemia knowledge, health-related quality of life, anaemia management, practitioner–patient relationships, and the information sources patients used. **Results** Of 446 patients with CKD, 255 (57.2%) were diagnosed with anaemia and 191 (42.8%) reported not being diagnosed with anaemia, or were unsure/could not remember (non-anaemia cohort). In patients with anaemia, 71.0% were aware of the relationship between CKD and anaemia versus 52.9% of those in the non-anaemia cohort. In the anaemia cohort, 46.3% of patients were aware of their haemoglobin level, compared with 27.2% of patients in the non-anaemia cohort. Symptoms most commonly reported as being made worse by anaemia included lack of energy (82.4%), feeling ill (31.4%), and the ability to enjoy life (30.2%). Despite 67.4% of patients with anaemia in CKD believing that their condition was well or very well managed, only 50% reported being informed about different treatments without having to prompt their healthcare professional, and 43.9% were seeking more information and support about managing their condition. **Conclusions** In the United States, patients with anaemia and CKD perceived that anaemia had a negative impact on their physical health and emotional wellbeing. Our findings emphasize the lack of disease awareness regarding anaemia in patients with CKD, suggesting that patients would benefit from further education regarding its management, and available treatment options.

Susan Grandy,¹ Eirini Palaka,² Nicolas Guzman,³ Alicia Dunn,⁴ Eric T. Wittbrodt,⁵ Fredric O. Finkelstein⁶

¹Biopharmaceuticals Global Market Access, AstraZeneca, Gaithersburg, MD, USA ²Biopharmaceuticals Global Market Access, AstraZeneca, Cambridge, UK ³Global Medicines Development, AstraZeneca, Gaithersburg, MD, USA ⁴Global Corporate Affairs, AstraZeneca, Gaithersburg, MD, USA ⁵Biopharmaceuticals Medical Unit, AstraZeneca, Gaithersburg, MD, USA ⁶Yale University, New Haven, CT, USA

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Correspondence : Dr Susan Grandy, BioPharmaceuticals Business Unit, AstraZeneca, One MedImmune Way, Gaithersburg, MD 20878. Tel: +1 302 723-1523; Email: susan.grandy@astrazeneca.com

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Disclosures

E. Palaka, N. Guzman, A. Dunn, E.T. Wittbrodt and S. Grandy are employees and stockholders of AstraZeneca. F.O. Finkelstein has received consultation fees from AstraZeneca, GSK, and Akebia.

Author contributions

A. Dunn, S. Grandy, E. Palaka and E.T. Wittbrodt contributed to the study design and data collection. E.T. Wittbrodt, E. Palaka, F.O. Finkelstein, N. Guzman and S. Grandy performed the data analysis and interpretation. All authors critically reviewed the manuscript, approved the final version, and accept accountability for the overall work.

Data sharing statement

Data underlying the findings described in this manuscript may be obtained in accordance with AstraZeneca's data sharing policy described at: <https://astrazenecagrouptrials.pharmacm.com/ST/Submission/Disclosure>.

Hosted file

Grandy_US patient survey manuscript_main text28Sept20_IW.pdf available at <https://authorea.com/users/365505/articles/485580-understanding-patient-perspectives-of-the-impact-of-anaemia-in-chronic-kidney-disease-a-united-states-patient-survey>

Figure 1. Beliefs about (A) causes of anaemia, and (B) symptoms associated with anaemia

A

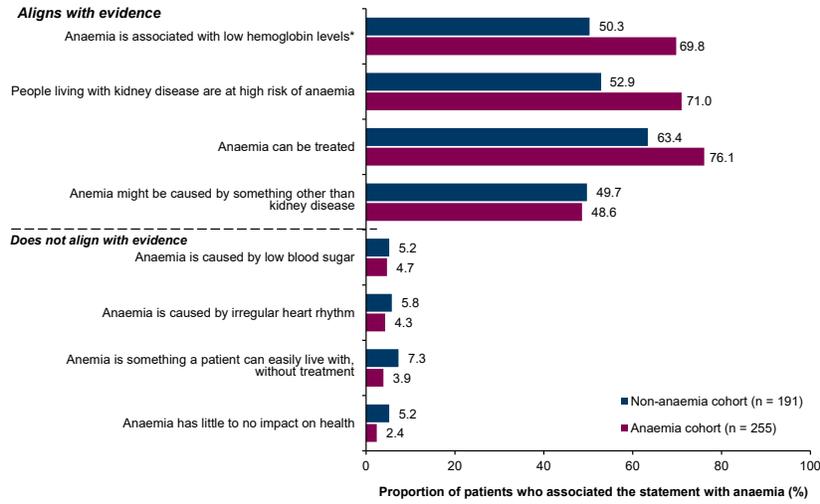


Figure shows the percentage of patients who selected each statement in response to the question 'Which of the following statements about anaemia do you think are correct?'

*Question asked to participants was phrased as 'Anaemia is caused by low hemoglobin levels'

B

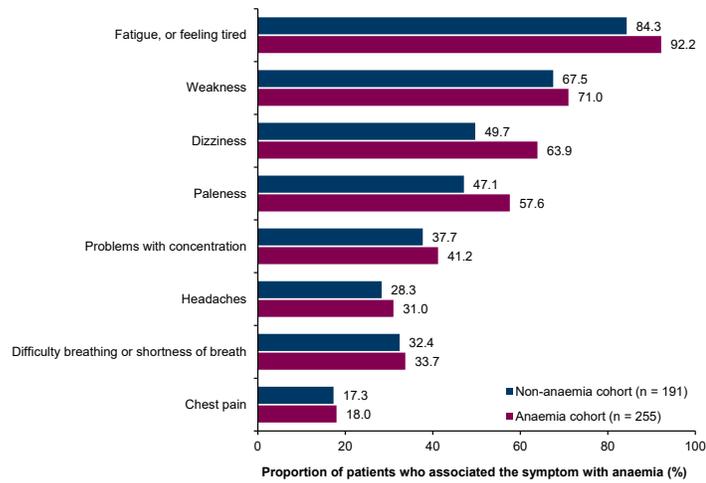
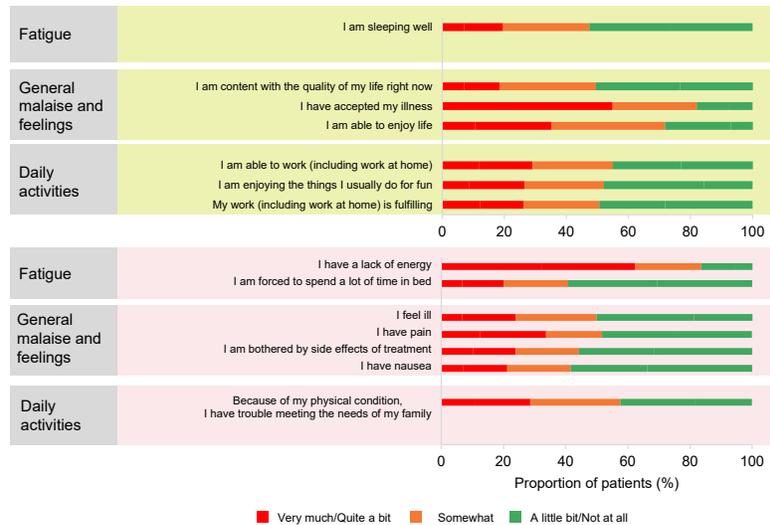


Figure shows the percentage of patients who selected each statement in response to the question 'Which of the following do you think are symptoms of anaemia?'

Figure 2. (A) Perception of chronic disease impact on HRQoL (anaemia cohort, n = 255): (B) worsening of physical symptoms attributed to anaemia by these patients

A



Patients were asked the following question 'Below are feelings that people who have a chronic condition, such as kidney disease, have mentioned that they can relate to. Please tell us how much these apply to you on a scale of 1 to 5, with 1 being 'not at all' and 5 'very much'.

B



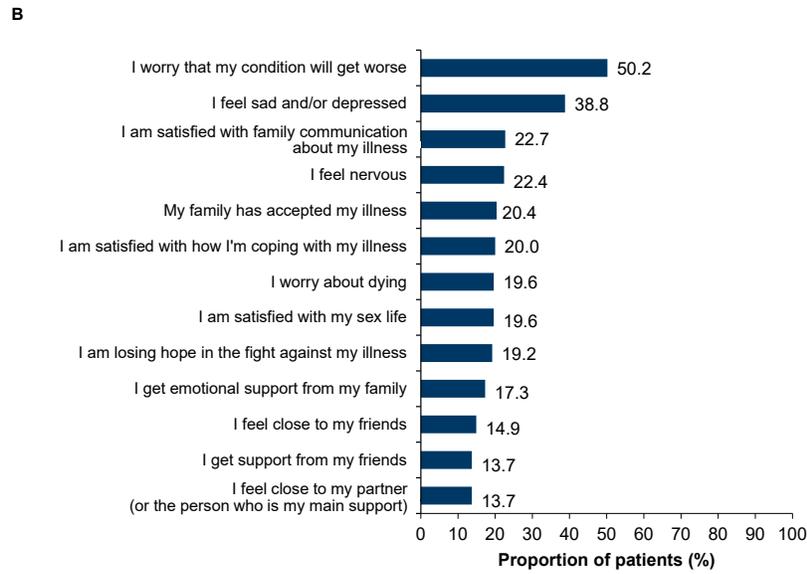
Abbreviation: HRQoL, health-related quality of life.

Patients were asked the following question 'Which of these feelings would you say is made worse by your anaemia?'

Figure 3. (A) Perception of chronic disease impact on HRQoL (anaemia cohort, n = 255): (B) worsening of emotional symptoms attributed to anaemia in CKD by these patients

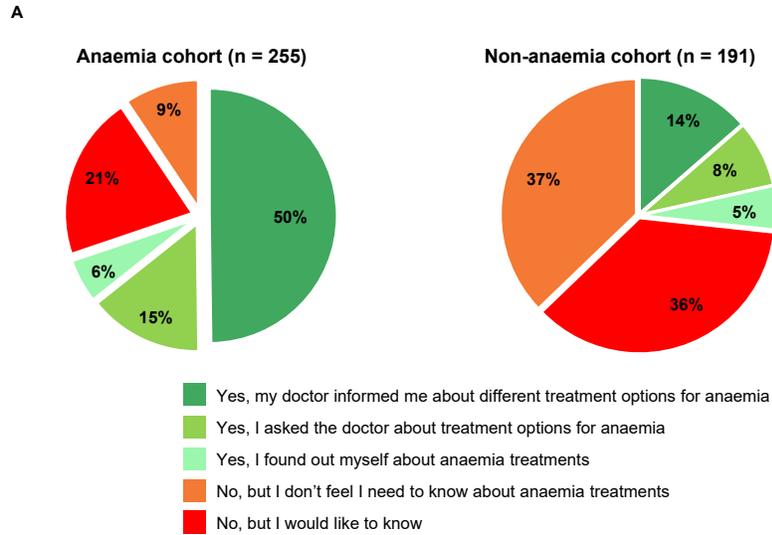


Abbreviation: HRQoL, health-related quality of life. Patients were asked the following question 'Below are feelings that people who have a chronic condition, such as kidney disease, have mentioned in relation to their emotions. Please tell us how much these apply to you on a scale of 1 to 5, with 1 being 'not at all' and 5 'very much'.

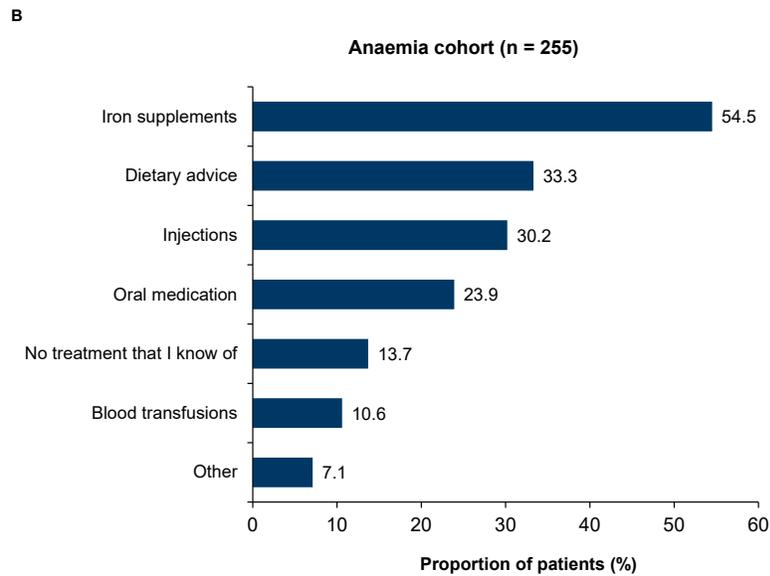


Patients were asked the following question 'Which of these feelings would you say is made worse by your anaemia?'

Figure 4. (A) Knowledge of treatment options for anaemia and how this was acquired, and (B) anaemia treatments reported by patients

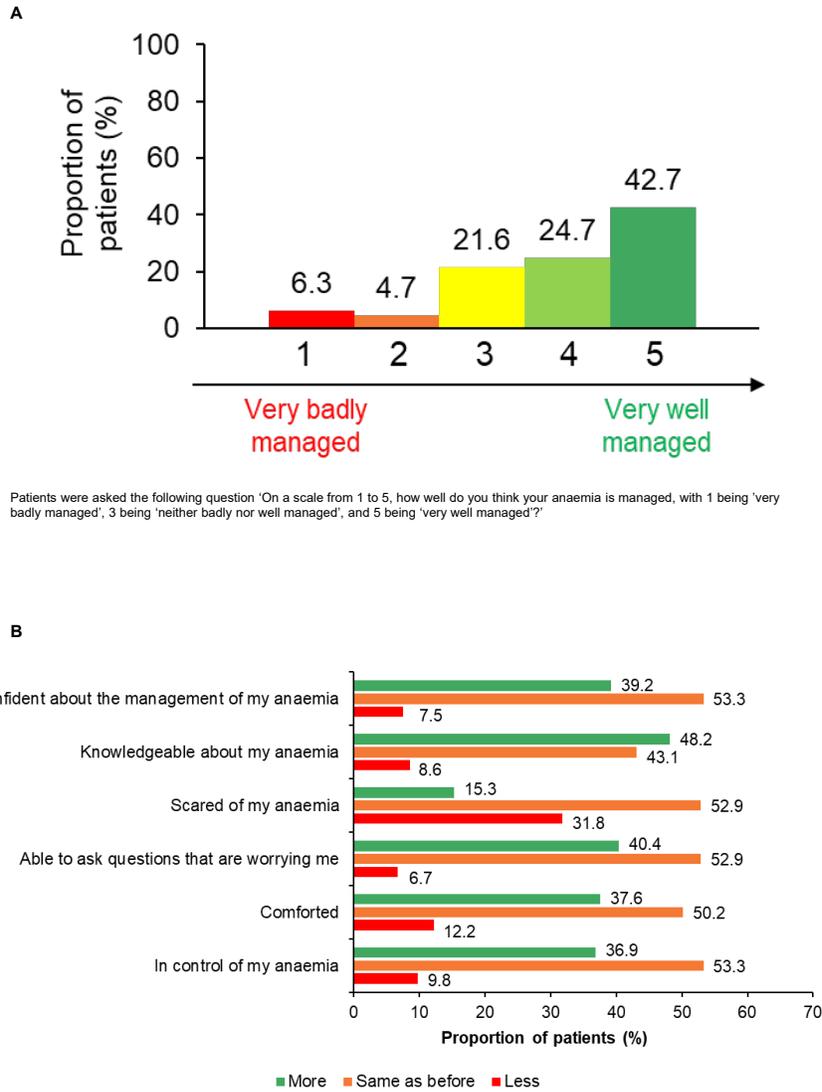


Patients were asked the following question 'Do you know about the different treatments which are available for managing anaemia and, if so, how did you find out?'



Patients were asked the following question 'How is your doctor currently managing your anaemia?'

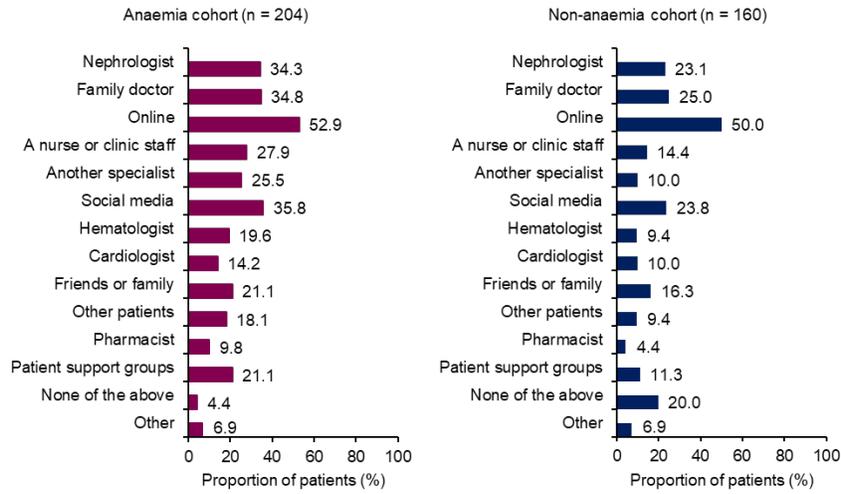
Figure 5. For the anaemia cohort (n = 255): (A) Patient perceptions of how well their anaemia was being managed, and (B) impact of discussing anaemia in CKD with HCPs



Abbreviations: CKD, chronic kidney disease; HCP, healthcare provider.
 Patients were asked the following question 'After your discussions with your doctors about anaemia, no matter how small, how do you feel?'

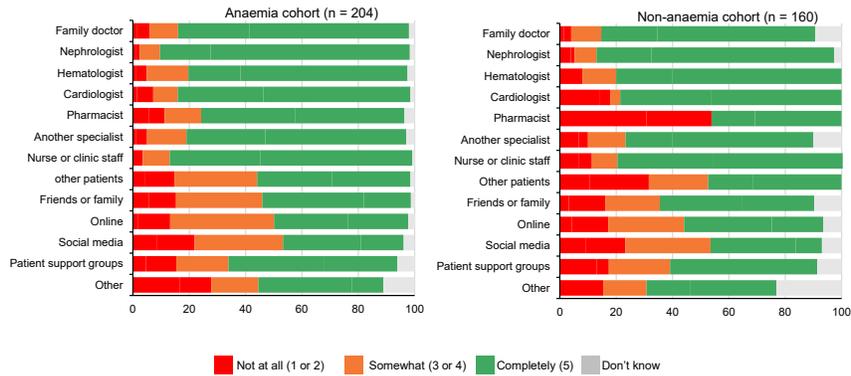
Figure 6. (A) Sources used by patients to look for information about anaemia, and (B) trust in the information received from these sources

A



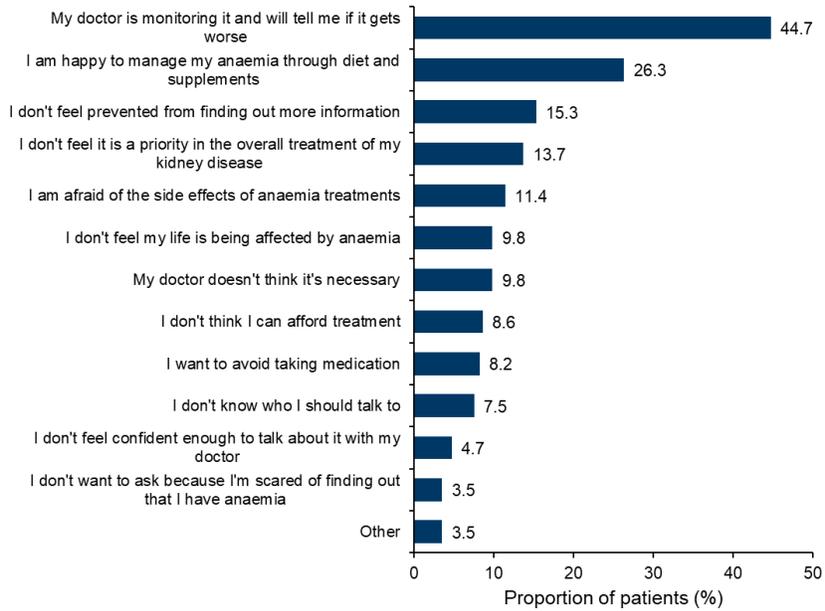
Patients were asked the following question 'Where have you looked for information about anaemia, or received information about anaemia from?'

B



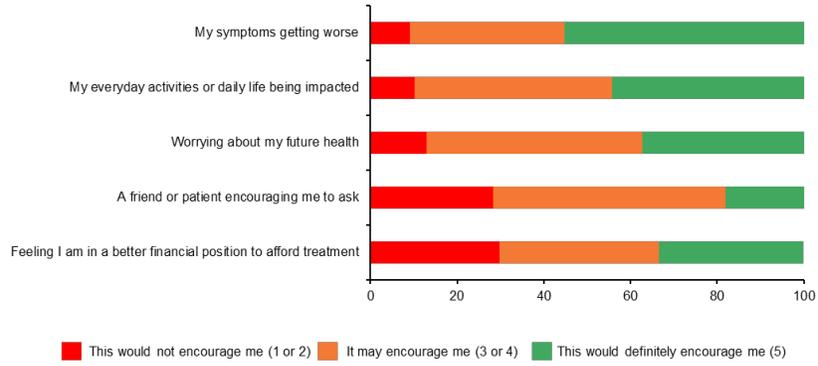
Patients were asked the following question 'And how much do you trust the information you get from these sources? From 1 being 'not at all' to 5 being 'completely'?'

Figure 7. Factors that prevented patients with anaemia in CKD from seeking more information about anaemia (anaemia cohort, n = 255)



Patients were asked the following question 'What prevents you from seeking help to find out more about your anemia?'

Figure 8. Factors that would encourage patients to seek more information or greater support about anaemia in CKD (anaemia cohort, n = 255)



Patients were asked the following question 'What would encourage you to seek more information, or greater support, about anaemia in the context of your kidney disease? Please rate the answers below (rating scale from 1 'this would not encourage me to seek help' to 'this would definitely encourage me to seek help' and middle point 'it may encourage me to seek help')