

### CHRONIC DISEASE, ANEMIA & BLOOD HEALTH

Chronic disease presents patients and communities with a host of challenges. Anemia, a deficiency in red blood cells, is often one of them.

Healthy blood plays an essential role in human health, delivering oxygen and nutrients throughout the body. Unhealthy blood, by contrast, signifies disease and underscores the need for medical management. Whether it's autoimmune diseases or cancer, chronic inflammation or kidney failure, chronic conditions take a toll on the body's blood.

Alongside other blood complications, such as blood loss and coagulation disorders, anemia poses a significant challenge. It also places a heavy burden on individual health, quality of life and public health. To better address this burden, medical systems and public officials alike must prioritize blood health for at-risk patients.



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### Q: What is the impact of anemia and blood loss?

Blood complications, such as anemia, blood loss and blood coagulation disorders, impact both a person's overall wellness and their quality of life.

At a population level, the impact of blood complications is staggering. Anemia alone affects roughly 2 billion people worldwide.<sup>1</sup> Anemia, blood loss and other blood health complications weaken economic productivity and reduce quality of life.

Impact varies depending upon the age and health of the person experiencing blood complications.

Significant symptoms result when there is more than a 20% loss in blood volume. Beyond that threshold, decreased blood volume may cause low blood pressure, mental impairment, cool and clammy skin, increased heart rate, and hyperventilation.<sup>2</sup>

#### Q: What causes anemia?

Anemia, in which the blood struggles to carry oxygen, often stems from deficiencies in micronutrients. Many people with anemia have an iron deficiency.<sup>3</sup>

Women are more prone to anemia than men are, with the difference being most prominent during women's reproductive years.<sup>4</sup>

Anemia also occurs alongside chronic diseases. This form of anemia is known as "anemia of chronic diseases" or "anemia of inflammation." It is the second most common type of anemia after iron deficiency.

Anemia affects about 2 billion people worldwide, predominantly women.



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## Q: Who experiences anemia of chronic diseases?

Anemia often accompanies chronic and inflammatory diseases. Anemia of chronic diseases affects people whose condition causes inflammation, which typically develops when a disease lasts longer than three months.<sup>4</sup>

Inflammation weakens the body's ability to produce iron in the blood. This, in turn, interferes with the creation of new red blood cells to circulate oxygen through the body. Anemia typically progresses slowly and may cause fatigue, shortness of breath and body aches. The more severe the underlying disease, the more intense is the anemia that accompanies it.<sup>5</sup>

Chronic conditions that can cause inflammationinduced anemia include autoimmune diseases such as lupus, rheumatoid arthritis and Crohn's disease. People with cancer, chronic kidney disease, heart failure, obesity, diabetes and infections such as HIV/AIDS are also vulnerable.<sup>6</sup> Age is another risk factor. About 1 million people aged 65 or older suffer from anemia of inflammation on top of their root condition.<sup>6</sup>

Chronic diseases are more prevalent among less affluent, minority and rural communities, putting these patient groups at a higher risk for anemiarelated complications. Scarcity of resources may make it more difficult for these patients to effectively identify or manage their chronic disease—and the anemia that may accompany it.<sup>7</sup>

# Anemia often accompanies chronic disease.



### Q: How can anemia of chronic diseases be addressed?

Managing anemia is critical to alleviating symptoms, improving quality of life, addressing the underlying chronic condition and reducing the future risk of complications.

Treatment for anemia of chronic diseases depends on the disease causing the inflammation and can vary from person to person. In some cases, treating the underlying condition eliminates the anemia completely.<sup>6</sup>

### A person's blood should be protected and managed at **every stage of care.**

Blood transfusions are a common short-term response to help relieve symptoms in patients with anemia. Increased awareness of the risks of routine blood transfusions,<sup>9</sup> however, has spurred the development of a new health care framework known as "patient blood management."

### Q: What is Patient Blood Management?

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The fundamental idea behind patient blood management is a simple one: A patient's own blood matters. Therefore, it should be protected and managed at every stage of care—before, during and after any procedure.<sup>9</sup>

Blood management focuses on patient education and routine checks for anemia and iron deficiency, as well as on managing blood loss during procedures based on unique risk factors. The evidence-based approach also entails monitoring possible anemia-causing interactions after treatment.

Patient blood management supports patients with anemia or blood complications while also empowering non-anemic patients to proactively manage their blood.

The benefits resonate throughout the health care system. With patient blood management, health care professionals have a clearly defined protocol, which encourages better patient outcomes, staff retention and reliable routines. Hospitals and health systems conserve their resources, particularly related to blood transfusions, and experience fewer readmissions and mortalities.

#### **Benefits of Patient Blood Management**



### CONCLUSION

Blood is a vital—and uniquely individual—resource. Yet certain patient populations across the globe continue to struggle with blood health, often due to anemia that accompanies chronic disease.

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Increased education, advocacy and solutions like patient blood management stand to strengthen clinical practices and improve patient outcomes. A timely and coordinated global response can reduce the risks associated with iron deficiencies, anemia, blood loss and blood disorders.

Policymakers play an important role in building awareness and aligning stakeholders on the importance of standardized screenings, healthy lifestyle promotion and blood management. By working together, patients, advocates, providers and policymakers can safeguard healthy blood as the invaluable resource that it is.



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#### About the Global Alliance for Patient Access

The Global Alliance for Patient Access is an international platform for health care providers and patient advocates to inform policy dialogue about patient-centered care.





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