PNH: A progressive and clonal disease that causes thrombosis, end organ damage, impaired quality of life, and increased mortality.[1-3]

35% of PNH patients die within 5 years of diagnosis.[1]

- Strikes patients in the prime of their lives — median age at diagnosis is early 30s[2]
- Thrombosis and renal failure are two leading causes of death[2,3]
- An initial thrombotic event dramatically increases the risk of death[2,3]
- Approximately 40% of patients with PNH experience a thrombotic event[1]
- Nearly all patients with PNH suffer from fatigue; 76% reported they had to modify daily activities[4]
- Patients also suffer from severe quality-of-life issues, including disabling abdominal pain and dyspnea[5]
- Each patient presents uniquely; all share the destructive consequences of hemolysis

Chronic hemolysis is the underlying cause of morbidities and mortality in PNH.[6]

Hemolysis is subtle and constant, with consequences that can be sudden and devastating.

END ORGAN DAMAGE
- Brain
- Lung
- Liver
- GI
- Kidney

IMPAIRED QUALITY OF LIFE
- Disabling fatigue
- Poor physical function
- Pain

ANEMIA
- Transfusions
- Fatigue
- Dyspnea
- Hemoglobinuria

SMOOTH MUSCLE DYSTONIA
- Abdominal pain
- Dysphagia
- Erectile dysfunction

THROMBOSIS VENOUS ARTERIAL
- DVT CVA
- Liver MI
- Dermal
- Cerebral
- Mesenteric

Even in the absence of symptoms, the destructive progression of hemolysis is ongoing.

PNH is characterized by the continuous destruction of PNH red blood cells; it frequently occurs in conjunction with conditions characterized by diminished production of RBCs, WBCs, and platelets (eg, aplastic anemia, myelodysplastic syndromes).[7]

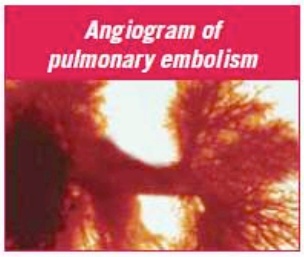
PNH clinical sequelae: pervasive, unpredictable from onset.

- PNH is progressive, life threatening, and can include fatal thrombosis and end organ damage or failure[1-3]
- Renal insufficiency prevalence in PNH patients is 5x general population[8,9]
- Venous or arterial thromboses account for approximately 40% to 67% of PNH-related deaths[10]
- Renal failure accounts for 8% of the mortality in patients with PNH[3]

63% of patients with PNH have Chronic Kidney Disease.[11]

Free hemoglobin damages end organs and increases the risk of thrombosis.[12]

- Systemic threats of hemolysis include:
  - Thrombosis (including fatal stroke) in both venous and arterial sites[1-3]
  - Acute renal failure (ARF) and chronic renal insufficiency (CRI)[1-3]
  - End organ damage or failure, including brain, liver, GI system, kidney, and lung[1-3]
- PNH symptoms that may be associated with nitric oxide deficiency include: abdominal pain, dysphagia, erectile dysfunction, and pulmonary hypertension
- During chronic hemolysis, excess free hemoglobin depletes plasma nitric oxide, leading to platelet aggregation and possibly increasing the risk of thrombosis (including fatal stroke) in both venous and arterial sites[1-3,12]



Venous or arterial thromboses account for approximately 40% to 67% of PNH-related deaths.[10]

Chronic renal insufficiency (CRI) and acute renal failure (ARF) are leading causes of death in PNH.[1,3]

Disabling abdominal pain, fatigue, and other quality-of-life issues are commonly reported in PNH.[5]

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Reducing chronic hemolysis is the primary goal of PNH management.

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