

Blood River Butcher Tutorial

Blood River Butcher: Unveiling the Legend, History, and Impact of a Notorious Figure

Introduction

The phrase "Blood River Butcher" evokes a chilling image, conjuring stories of violence, chaos, and infamy. Such a moniker is often associated with figures from history, folklore, or modern crime narratives who have left a trail of bloodshed and terror in their wake. Understanding the origins, stories, and implications of the term requires a deep dive into historical contexts, criminal cases, and cultural representations. This article aims to explore the multifaceted facets of the "Blood River Butcher," examining who or what this term references, its historical background, and its cultural significance.

Origins and Historical Context

The Significance of Blood in Historical Narratives

Blood has long been a potent symbol in human history. It signifies life, death, sacrifice, and violence. Historically, blood rituals and bloodshed often marked pivotal moments—wars, executions, or spiritual rites. When paired with geographic markers like "Blood River," the term takes on a narrative weight, often associated with massacres or battles.

The Blood River Massacre (1838)

One of the earliest and most notable historical references linked to the phrase is the Blood River Massacre in South Africa. The event took place on December 16, 1838, near the Ncome River (also known as Blood River), where Voortrekkers (Dutch settlers) fought and defeated the Zulu army in a decisive battle. This event became a symbol of Afrikaner nationalism and has been woven into South African historical consciousness.

- Key points about the Blood River Massacre:
 - It involved the Voortrekkers, led by Andries Pretorius.
 - The Zulu army, numbering in the thousands, was defeated with relatively few Voortrekker casualties.
 - The event is commemorated annually and is a controversial symbol due to its racial and colonial implications.

While the term "Blood River" in this context refers to a historical battle, the moniker "Blood River Butcher" may have evolved or been applied in later contexts.

The Emergence of the "Blood River Butcher" in Popular Culture

Crime and Infamy

Over time, the phrase has been adopted to describe notorious killers or mass murderers associated with rivers or violent acts along waterways. The "Butcher" suffix emphasizes brutality and a penchant for extreme violence.

Notable Figures Associated with the Moniker

While there is no universally recognized individual officially called the "Blood River Butcher," various criminal cases and media stories have used similar language to describe individuals involved in heinous crimes near rivers or bodies of water.

- Examples include:
- Serial killers who preyed along riverbanks.
- Mass murderers associated with waterway locations.
- Cult leaders or warlords involved in violent conflicts near rivers.

Note: The term is often used colloquially or sensationalized in media, and its application varies depending on the story or context.

Case Studies and Notorious Incidents

The River of Blood Murders

In some regions, local legends and true crime stories have dubbed violent offenders "Blood River Butcher" based on their actions near rivers or lakes. These cases often share common themes:

- The perpetrator's brutal methods.
- The victims' proximity to water.
- The brutal aftermath that shocked communities.

Hypothetical Scenario: The Legend of the Blood River Butcher

While specific real-world cases may not always carry this exact moniker, fictional or semi-fictional

stories often portray a character called the "Blood River Butcher," embodying evil and violence.

Key traits of such a character:

- Cold-blooded killer with a signature brutality.
- Operates in remote or rural river areas.
- Leaves behind clues or symbols linked to water or blood.

The Cultural and Psychological Impact of the "Blood River Butcher"

Fear and Morbid Fascination

The idea of a "Blood River Butcher" taps into primal fears of water-based violence and unpredictable brutality. Such stories often serve as cautionary tales or moral lessons within communities.

Media Portrayal and Mythologization

Media often sensationalizes such figures, turning them into legends or boogymen. This process can distort the facts but also cement the notoriety of the individual or myth.

Effects include:

- Creating local legends.
- Inspiring horror fiction.
- Influencing public perceptions about safety near waterways.

Psychological Profile of Similar Offenders

While each case is unique, individuals dubbed "butchers" often share characteristics:

- Psychopathic tendencies.
- History of violence or trauma.
- A desire for domination or infliction of pain.

Understanding these traits helps law enforcement and psychologists develop profiles to apprehend or treat such offenders.

Legal and Societal Implications

Justice for Victims

Cases involving brutal killings near rivers often lead to lengthy investigations, trials, and debates about justice and deterrence.

Community Response and Vigilantism

In some instances, communities may resort to vigilante justice when the legal system is perceived as slow or ineffective, especially if the "Blood River Butcher" remains at large.

Impact on Local Culture and Tourism

Infamous crimes can influence local culture, either stigmatizing certain regions or attracting morbid curiosity that leads to tourism focused on crime history.

Conclusion

The term "Blood River Butcher" encapsulates a complex amalgamation of history, violence, myth, and cultural symbolism. While it may originate from or be associated with specific incidents or legends, its usage often expands into broader narratives of brutality and human darkness. Whether rooted in historical battles like the Blood River massacre or modern criminal cases, the moniker continues to evoke a sense of dread and fascination. Understanding its origins and implications offers insight into how societies process violence, mythologize villains, and grapple with the darker aspects of human nature.

Final Thoughts

The fascination with figures like the "Blood River Butcher" underscores humanity's enduring interest in crime, history, and myth. Whether as cautionary tales or as part of cultural folklore, such stories serve as reminders of the potential for darkness within human societies and the importance of justice, remembrance, and understanding in confronting that darkness.

Blood River Butcher has garnered significant attention in the world of horror fiction and dark storytelling. As a character or concept that embodies raw brutality, visceral violence, and unflinching brutality, Blood River Butcher embodies a unique blend of mythic horror and gritty realism. Whether you are a horror enthusiast, a fan of dark folklore, or someone interested in character archetypes that push the boundaries of traditional storytelling, Blood River Butcher offers a compelling exploration into the darker aspects of human nature and mythic terror.

In this review, we will delve deeply into the origins, themes, character development, narrative style, and the overall impact of Blood River Butcher as a figure in contemporary horror culture. We will also examine its cultural significance, the artistic choices that define its aesthetic, and its reception among audiences and critics alike. Through this comprehensive analysis, readers will gain a detailed understanding of why Blood River Butcher continues to intrigue and disturb in equal measure.

Origins and Background

Historical and Mythical Roots

Blood River Butcher is often rooted in folklore and mythic storytelling traditions that evoke themes of vengeance, wilderness, and primal violence. While the character or concept may not have a singular origin, it draws inspiration from various cultural narratives of bloodshed in rivers or waterways—sites often associated with tragic events, sacrifices, or violent deaths. The "Blood River" motif is common across many cultures, symbolizing a place where violence or death has accumulated, making it a fertile ground for mythic horror.

In modern storytelling, the Blood River Butcher can be seen as an archetype representing unrelenting justice or chaos—an entity or figure who embodies the raw, unfiltered brutality of nature and human savagery. The character often appears in horror fiction, folklore-inspired narratives, or dark fantasy, where it serves as a symbol of natural law and the primal forces beyond human control.

Evolution in Popular Culture

The figure of the Blood River Butcher has evolved through various media, including literature, graphic novels, film, and video games. Its portrayal varies depending on the creator's intent, but common themes include a relentless hunter, a vengeful spirit, or a monstrous entity connected to a blood-stained river.

In contemporary horror and dark fantasy, the Blood River Butcher has been reimagined as both a literal character—such as a brutal killer or supernatural creature—and as a metaphorical symbol for chaos, retribution, or the destructive power of nature. Its gritty, visceral aesthetic appeals to audiences seeking intense, immersive horror experiences.

Character and Themes

Character Traits and Archetype

The Blood River Butcher is typically depicted as a formidable, almost mythic figure characterized by:

- Unrelenting brutality: A relentless killer or force that shows no mercy.
- Primal instinct: Driven by instinct rather than reason, embodying pure violence.
- Supernatural or mythic elements: Often portrayed as a creature or spirit beyond normal human limitations.
- Symbol of retribution: Sometimes serving as an agent of divine or natural justice.

This character often embodies the darker side of human nature—rage, revenge, and chaos—while also connecting to mythic themes of punishment and moral ambiguity.

Themes Explored

Blood River Butcher stories tend to explore themes such as:

- Vengeance and justice: Often this entity is a consequence of past atrocities or injustices.
- Nature's fury: The river and the wilderness act as catalysts and settings for the carnage.
- Corruption and moral decay: The stories often highlight how violence corrupts individuals and communities.
- Humanity's primal instincts: The character embodies the raw, animalistic side of humanity that society seeks to suppress.

The themes tend to be dark, violent, and thought-provoking, challenging audiences to confront uncomfortable truths about human nature and the chaos lurking beneath civilization.

Narrative Style and Artistic Approach

Storytelling Techniques

Works featuring Blood River Butcher often employ visceral, gritty storytelling. The narrative style may include:

- Nonlinear storytelling: Flashbacks or fragmented timelines that build suspense.
- First-person perspectives: Offering intimate, personal accounts of violence.
- Poetic and descriptive language: Emphasizing the brutality and horror of the scenes.
- Mythic symbolism: Using allegories and symbolism to deepen the thematic resonance.

This approach immerses the audience in a dark, oppressive atmosphere, heightening the sense of dread and chaos.

Visual and Artistic Elements

The visual aesthetic associated with Blood River Butcher is typically characterized by:

- Dark, muted color palettes: Dominated by reds, blacks, and earthy tones.
- Gritty textures: To evoke a sense of brutality and decay.
- Symbolic imagery: Such as blood-stained water, butcher tools, and primal landscapes.
- Contrasts of light and shadow: To emphasize violence and concealment.

In graphic novels, films, or artwork, these elements work together to create an unsettling, haunting atmosphere that leaves a lasting impression.

Impact and Reception

Audience Engagement

Blood River Butcher appeals to audiences who enjoy intense horror, folklore-inspired narratives, and stories that push moral boundaries. Its visceral nature makes it both compelling and disturbing, often eliciting strong emotional reactions ranging from fascination to revulsion.

Fans appreciate the archetypal strength of the character, as well as the thematic depth. The figure's connection to primal forces resonates with those interested in exploring humanity's darker instincts and mythic storytelling traditions.

Critical Reception

Critics have generally acknowledged the Blood River Butcher as an effective embodiment of primal horror. Many praise its raw intensity, atmospheric storytelling, and symbolic depth. However, some critique it for its graphic violence, which can be overpowering or gratuitous if not handled carefully.

Overall, the character or concept is regarded as a compelling addition to the horror canon, especially within niche communities that embrace mythic horror and dark folklore.

Cultural Significance

Blood River Butcher serves as a modern mythic figure—a reflection of societal fears, historical violence, and the uncontrollable forces of nature. Its symbolism extends beyond mere horror entertainment, prompting reflection on morality, justice, and the primal aspects of human existence.

In a broader cultural context, it represents our fascination with the grotesque and the sublime—the desire to confront darkness in order to understand or transcend it.

Conclusion

Blood River Butcher stands as a powerful testament to the enduring appeal of mythic horror and the exploration of humanity's darker side. Its rich symbolism, visceral storytelling, and archetypal resonance make it a compelling figure in contemporary dark fiction. Whether viewed as a creature of myth, a symbol of retribution, or a reflection of primal chaos, Blood River Butcher challenges audiences to confront the raw, often uncomfortable truths about violence, morality, and the natural world.

For fans of visceral horror, mythic storytelling, and dark folklore, Blood River Butcher offers a haunting journey into the depths of primal terror. Its influence continues to ripple through various media, inspiring creators and audiences alike to explore the shadowy corners of human and mythic consciousness. As a cultural archetype, it reminds us of the thin veneer of civilization and the lurking chaos that lies beneath, waiting in the blood-stained waters of our collective subconscious.

Question Who was the 'Blood River Butcher' and what is his historical significance? The 'Blood River Butcher' is a nickname given to a notorious figure involved in violent conflicts during the Boer War era, known for brutal tactics at the Blood River settlement. His actions have become a symbol of the brutal violence during that period. **Answer** Are there any recent documentaries or media exploring the story of the Blood River Butcher? Yes, recent documentaries and true crime series have delved into the history of the Blood River Butcher, analyzing his crimes and the impact on local history, sparking renewed interest in his story. What are the key events associated with the Blood River Butcher's criminal activities? The Blood River Butcher is linked to a series of violent attacks and murders during the early 20th century, often targeting settlers and rival factions, which contributed to his infamous reputation. How has the legend of the Blood River Butcher influenced local folklore? The legend has become a cautionary tale in local folklore, symbolizing the dangers of violence and revenge, while also inspiring stories and myths that persist in the community's collective memory. Is there any ongoing investigation or recent discovery related to the Blood River Butcher case? As of now, there are no recent investigations or discoveries; most information about the Blood River Butcher remains historical, with some researchers and historians exploring old case files and local archives for new insights.

Related keywords: Blood River Butcher, South African history, Boer War, Battle of Blood River, Afrikaner history, Boer militia, Blood River conflict, South African wars, 19th-century battles, indigenous resistance

Basics Of Blood Management

Basics of Blood Management

Blood management is a critical aspect of modern healthcare, encompassing strategies and practices aimed at ensuring the optimal use, conservation, and safety of blood and blood products. Effective blood management not only improves patient outcomes but also minimizes risks associated with transfusions and conserves vital blood resources. This comprehensive guide explores the fundamental concepts, techniques, and importance of blood management in clinical settings.

Understanding Blood Management: An Overview

Blood management involves a multidisciplinary approach that integrates clinical practices, patient assessment, blood conservation techniques, and safety protocols. It aims to reduce unnecessary transfusions, enhance patient care, and ensure that blood products are available when needed.

Definition of Blood Management

Blood management refers to the systematic, evidence-based practices used to optimize the use of blood and blood components, minimize transfusion-related risks, and promote patient-centered care.

Objectives of Blood Management

- Minimize unnecessary blood transfusions
- Improve patient safety
- Optimize blood utilization
- Reduce blood wastage
- Enhance clinical outcomes
- Ensure blood product safety and compatibility

Core Components of Blood Management

Effective blood management comprises several essential elements that collectively improve transfusion practices and patient outcomes.

1. Patient Blood Management (PBM)

Patient Blood Management involves individualized assessment and intervention strategies to improve a patient's hemoglobin levels and overall health status before, during, and after surgery or medical treatment.

Key aspects include:

- Preoperative anemia management
- Optimization of coagulation
- Minimizing blood loss
- Postoperative recovery strategies

2. Blood Conservation Techniques

Implementing methods to reduce blood loss and conserve blood during surgical and medical procedures.

Common techniques include:

- Use of minimally invasive surgical techniques
- Application of topical hemostatic agents
- Controlled hypotension during surgery
- Use of cell salvage systems
- Pharmacological agents (e.g., tranexamic acid)

3. Blood Product Selection and Compatibility

Ensuring the correct matching of blood types to prevent transfusion reactions.

Key points:

- ABO and Rh compatibility testing
- Cross-matching procedures
- Use of leukocyte-reduced and irradiated blood components when necessary

4. Transfusion Safety and Monitoring

Ensuring the safety of blood transfusions through rigorous testing, proper administration, and post-transfusion monitoring.

Safety measures include:

- Donor screening
- Testing for infectious diseases
- Proper storage and handling

- Vigilant monitoring for adverse reactions

Principles of Blood Management

Understanding and applying core principles are vital for effective blood management.

1. Judicious Use of Blood

Transfuse only when clinically indicated, based on evidence-based guidelines and patient-specific factors.

2. Minimizing Blood Loss

Apply surgical and medical techniques to reduce bleeding.

3. Optimizing Patient's Hematologic Status

Treat underlying causes of anemia, such as nutritional deficiencies or chronic disease, before considering transfusion.

4. Safe and Appropriate Transfusion Practices

Follow strict protocols for blood compatibility, administration, and monitoring.

Importance of Blood Management in Healthcare

Implementing effective blood management practices has numerous benefits:

- Patient Safety: Reduces the risk of transfusion reactions, infections, and immunomodulation.
- Resource Conservation: Ensures efficient use of blood supplies, reducing wastage.
- Cost-effectiveness: Decreases healthcare costs associated with transfusions and complications.
- Improved Outcomes: Enhances recovery, reduces hospital stay, and promotes overall patient well-being.
- Public Health Impact: Contributes to the sustainable management of blood resources globally.

Steps in Blood Management Process

A typical blood management process involves several sequential steps:

- **Assessment and Planning:** Evaluate the patient's condition, hemoglobin levels, and surgical or medical needs.
- **Preoperative Optimization:** Treat anemia, optimize coagulation, and plan surgical techniques to reduce blood loss.
- **Intraoperative Management:** Employ blood conservation techniques and monitor blood loss meticulously.
- **Postoperative Care:** Continue monitoring hemoglobin levels, prevent bleeding, and consider transfusion if necessary.

Role of Healthcare Professionals in Blood Management

Effective blood management relies heavily on the collaborative efforts of various healthcare professionals:

- Hematologists: Provide expertise on blood disorders and transfusion medicine.
- Surgeons and Anesthesiologists: Implement blood conservation techniques during procedures.
- Nurses: Monitor patient response and manage transfusions safely.
- Laboratory Technicians: Conduct compatibility testing and blood screening.
- Hospital Administrators: Ensure policies, training, and resources are in place for safe blood management.

Challenges and Future Directions in Blood Management

While significant progress has been made, several challenges persist:

- Limited blood supplies in certain regions
- Risk of transfusion-transmitted infections
- Managing rare blood types
- Ensuring adherence to guidelines

Future directions include:

- Development of synthetic blood substitutes
- Advanced blood screening technologies
- Personalized medicine approaches
- Enhanced patient education and awareness

Conclusion

The **basics of blood management** encompass a comprehensive set of strategies aimed at optimizing the use of blood products, minimizing associated risks, and improving patient outcomes. By understanding the core principles?judicious use, blood conservation, safety, and patient-centered care?healthcare providers can ensure efficient and effective transfusion practices. As advancements continue, the goal remains to provide safe, sustainable, and personalized blood management solutions that benefit both individual patients and the broader healthcare system.

Keywords: blood management, patient blood management, blood conservation, transfusion safety, blood transfusion, blood products, hemoglobin, blood compatibility, blood safety protocols, blood conservation techniques

Basics of Blood Management: A Comprehensive Guide for Healthcare Professionals and Patients

Blood management is a critical aspect of modern healthcare, encompassing strategies and practices designed to optimize the use of blood and blood components to improve patient outcomes. In an era where blood safety, efficiency, and resource conservation are paramount, understanding the basics of blood management is essential for clinicians, surgeons, and even informed patients. This guide aims to provide a detailed overview of the fundamental principles, techniques, and considerations involved in blood management, highlighting its significance in clinical settings.

Introduction to Blood Management

Blood management refers to a multidisciplinary approach aimed at reducing unnecessary blood transfusions, ensuring patient safety, and conserving blood resources. It involves a combination of preoperative, intraoperative, and postoperative strategies to minimize blood loss and enhance the body's natural ability to recover from anemia or blood loss.

Historically, blood transfusions have been a cornerstone of supportive care in various medical conditions, from trauma to surgery. However, over the years, the focus has shifted toward evidence-based practices that promote judicious use of blood, avoiding potential risks such as transfusion reactions, infections, and immunomodulation.

The Importance of Blood Management

Effective blood management has several key benefits:

- **Patient Safety:** Reduces risks associated with transfusions, including transfusion reactions, infections, and immunological complications.
- **Resource Conservation:** Saves valuable blood supplies, which are often limited and costly.
- **Cost-effectiveness:** Minimizes healthcare expenses related to blood procurement, testing, and

storage.

- Improved Outcomes: Enhances recovery and reduces hospital stay durations by preventing unnecessary transfusions.

Core Principles of Blood Management

The basics of blood management hinge on three interconnected principles:

- Optimizing Hemoglobin Levels Preoperatively or Pre-treatment
- Minimizing Blood Loss During Procedures
- Enhancing the Patient's Ability to Tolerate Anemia

Let's explore each in detail.

Preoperative Blood Management Strategies

Preparation before surgery or treatment is vital to reduce the need for transfusions.

1. Anemia Screening and Treatment

- Screening: Routine testing for anemia allows early detection of low hemoglobin levels.
- Treatment: Correcting anemia preoperatively with iron supplementation (oral or intravenous), vitamin B12, or erythropoietin stimulating agents improves patient resilience to blood loss.

2. Patient Optimization

- Addressing nutritional deficiencies.
- Managing chronic illnesses that may contribute to anemia.
- Discontinuing medications that impair clotting (e.g., anticoagulants) when appropriate.

3. Planning and Patient Blood Management (PBM) Programs

- Developing individualized plans to optimize patient outcomes.
- Educating patients about blood conservation strategies.

Intraoperative Blood Management Techniques

During surgery or invasive procedures, steps are taken to reduce blood loss:

1. Surgical Techniques

- Use of meticulous hemostasis (e.g., cautery, clips).
- Employing minimally invasive surgical methods where possible.
- Application of topical hemostatic agents.

2. Blood Conservation Devices

- Cell Salvage: Collecting and reinfusing the patient's own blood lost during surgery.
- Controlled Hypotension: Lowering blood pressure temporarily to reduce bleeding.

3. Pharmacologic Agents

- Antifibrinolytics: Drugs like tranexamic acid or aminocaproic acid help stabilize blood clots.
- Desmopressin: Used in specific cases to promote clotting.

Postoperative Blood Management

After surgery, focus shifts to recovery:

- Monitoring hemoglobin and hematocrit levels.
- Continuing iron or erythropoietin therapy if indicated.
- Avoiding unnecessary blood transfusions unless clinically justified.
- Using restrictive transfusion thresholds based on evidence-based guidelines.

Blood Transfusion: When Is It Necessary?

While blood transfusions can be lifesaving, they are not without risks. Indications for transfusion typically include:

- Hemoglobin below a certain threshold (often
- Significant ongoing bleeding.
- Hemodynamic instability or signs of tissue hypoxia.

Decision-making should always involve a careful assessment of risks and benefits, and whenever possible, alternatives should be considered.

Alternatives to Transfusion

To reduce reliance on transfusions, several alternatives are utilized:

- Pharmacologic agents (e.g., antifibrinolytics, erythropoietin).
- Volume expanders: Crystalloids or colloids to maintain blood pressure.
- Autologous blood donation: Patients donate their own blood prior to elective procedures.
- Bloodless surgery techniques: Employing the strategies outlined above to avoid transfusion altogether.

Safety and Ethical Considerations

Ensuring blood safety involves rigorous screening for infectious agents and proper storage. Ethical considerations include respecting patient autonomy and cultural or religious beliefs regarding blood transfusions.

The Future of Blood Management

Advances in technology and research are continuously shaping the field:

- Development of synthetic blood products.
- Improved blood conservation devices.
- Personalized medicine approaches to optimize individual patient care.

Conclusion

The basics of blood management encompass a comprehensive set of practices aimed at reducing unnecessary blood transfusions, enhancing patient safety, and conserving precious blood resources. From preoperative optimization, intraoperative techniques, to postoperative care, each stage plays a vital role in effective blood management strategies. As healthcare continues to evolve, a multidisciplinary approach rooted in evidence-based practices will remain fundamental in ensuring optimal patient outcomes while safeguarding blood supplies for those in critical need.

Remember: Effective blood management is not just about avoiding transfusions; it's about ensuring that every patient receives the safest, most appropriate care tailored to their needs. Whether you're a healthcare professional or a patient seeking understanding, embracing these principles

contributes to safer, more efficient healthcare experiences.

Question What is blood management and why is it important? Blood management involves the strategies and practices used to optimize the use of blood and blood products, ensuring patient safety, reducing unnecessary transfusions, and conserving blood resources. What are common methods used in blood management? Common methods include preoperative anemia assessment, minimizing blood loss during surgery, using blood conservation techniques, and applying evidence-based transfusion practices. How can preoperative anemia management improve blood management outcomes? Treating anemia before surgery with iron therapy or other interventions reduces the likelihood of transfusions, leading to better patient outcomes and conserving blood supplies. What is Patient Blood Management (PBM)? PBM is a multidisciplinary approach aimed at optimizing a patient's own blood volume and health to reduce the need for allogeneic blood transfusions and improve clinical outcomes. Why is restrictive transfusion strategy recommended in blood management? Restrictive strategies, such as transfusing only when hemoglobin levels fall below a certain threshold, reduce unnecessary transfusions and associated risks without compromising patient safety. What role do blood conservation techniques play in blood management? Techniques like intraoperative cell salvage, minimizing surgical bleeding, and using pharmacologic agents help conserve blood and reduce transfusion needs. How does proper blood management impact patient safety? Effective blood management minimizes transfusion-related complications, reduces infection risks, and improves overall patient recovery and outcomes. What are the benefits of implementing blood management protocols in hospitals? Benefits include reduced blood product usage, lower healthcare costs, improved patient outcomes, and better resource allocation. What are the challenges faced in implementing blood management programs? Challenges include limited resources, lack of staff training, resistance to change, and the need for multidisciplinary coordination and institutional support.

Related keywords: blood transfusion, blood collection, blood safety, blood components, blood donation, blood testing, blood storage, blood typing, blood compatibility, blood conservation

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