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Switching to Guselkumab in Moderate-to-Severe Psoriasis: Role of Patient-Reported Outcomes and Hospital Pharmacists

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Abstract: Switching biologic therapy in moderate-to-severe psoriasis is common due to suboptimal responses, tolerability, or patient preference. Guselkumab, an IL-23 inhibitor, has emerged as a robust option, showing high persistence, effectiveness, and favorable patient-reported outcomes (PROs) across diverse patient populations. This article explores current evidence on real-world effectiveness of guselkumab post-switch, highlights the pivotal role of PROs in care optimization, and examines the evolving practice role of hospital pharmacists in implementing biologic switching protocols.

Keywords: Biologic Switching, Guselkumab, IL-23 Inhibitor, Patient-Reported Outcomes, Psoriasis Management

INTRODUCTION

Psoriasis is a chronic, immune-mediated dermatologic condition affecting approximately 2–3% of the global population. Moderate-to-severe cases significantly compromise physical, psychological, and social functioning. The emergence of biologics has transformed management, yet switching among agents, especially to newer options like guselkumab, is guided by both clinical efficacy and holistic patient experiences[1][2]

GUSELKUMAB: MECHANISM AND CLINICAL RATIONALE FOR SWITCHING

Mechanism of Action

Guselkumab is a monoclonal antibody targeting the p19 subunit of interleukin-23 (IL-23), a cytokine central to psoriatic inflammation. By selectively inhibiting IL-23, guselkumab downregulates the Th17-cell pathway, leading to decreased keratinocyte proliferation and reduced inflammation[1].

Rationale for Switching

- **Loss of Efficacy:** Patients on anti-TNF or anti-IL-17 therapies may experience waning effectiveness ("secondary failure").
- **Safety/Tolerability Concerns:** Some patients discontinue previous biologics due to adverse drug reactions.

- **Patient Preference and Convenience:** Dosing frequency, administration route, and lifestyle considerations play a role.
- **Advances in Treatment:** New mechanisms like IL-23 inhibition with guselkumab may offer superior efficacy or safety profiles[1][2].

Real-World Effectiveness and Persistence of Guselkumab

Recent real-world and clinical studies have confirmed that switching to guselkumab delivers sustained clinical benefits and high treatment persistence in diverse patient populations.

Study Highlights

- **SPRING Study (Spain, 2025):**
  - **Persistence:** 1-year probability of continuing guselkumab was 89.6%, with comparable rates whether patients were biologic-naïve or previously exposed[1].
  - **Effectiveness:** After 1 year, 56.4% achieved PASI 90 (90% reduction in Psoriasis Area Severity Index), 65.5% reached IGA 0/1 (clear/almost clear), and 77.8% had <3% body surface area (BSA) involved.
  - **Quality of Life:** 65.8% experienced a significant (>4-point) improvement in Dermatology Life Quality Index (DLQI)[1].
- **4-Year Longitudinal Data:**
  - **Response Durability:** Among 202 patients, mean PASI decreased from 10.88 at baseline to 0.48 after 208 weeks.
  - **PASI100 Achievements:** 64.7% achieved complete skin clearance at 208 weeks.
  - **Drug Survival:** 68.5% of patients remained on guselkumab after 4 years, underscoring its long-term tolerability and effectiveness[2].

Adverse Events

Safety profiles remained favorable across studies. Most reported reactions were mild; the rate of discontinuation due to serious adverse events was low[1][2].

Figure 1. Guselkumab Effectiveness and Persistence (SPRING Study, 1 Year)

Outcome	Percentage of Patients Achieving Outcome
1-year treatment persistence	89.6%[1]
PASI 90 response	56.4%[1]
IGA 0/1 (clear or almost clear)	65.5%[1]
<3% Body Surface Area involved	77.8%[1]
Significant DLQI improvement (>4 points)	65.8%[1]

Role of Patient-Reported Outcomes in Treatment Optimization

Importance of PROs

Traditional clinical measures (e.g., PASI, BSA) do not always capture the personal burden, psychosocial effects, or day-to-day symptom control that matter most to patients[3][4]. PROs—such as the DLQI, itch and pain VAS scales, and the Patient Benefit Index—provide essential perspective:

- **Therapeutic Goal Alignment:** Patients prioritize skin clearance, symptom control (itch, scaling), and improved quality of life over objective scores alone[3].
- **Detection of Hidden Needs:** Studies show discordance between PASI/BSA scores and DLQI in 35–42% of cases, indicating undertreatment or missed distress when only clinician metrics are considered[3].

  "Evaluating patients with clinician-reported outcomes or patient-reported outcomes alone could lead to an incomplete understanding of disease severity, which may lead to undertreatment or overtreatment."[3]

Impact on Treatment Decisions

Surveys reveal that over 70% of dermatologists incorporate PROs alongside PASI when selecting biologics. When PASI improvements are otherwise similar, PROs can tip the balance toward one agent over another, especially in switch scenarios[3][4].

Figure 2. Concordance and Discordance between Clinical and Patient-Reported Outcomes

PRO vs. CRO Concordance	Percentage of Psoriasis Patients[3]

1-level difference (DLQI vs PASI)	41.8%
1-level difference (DLQI vs BSA)	35.5%
2-level difference (DLQI vs PASI)	9.1%
2-level difference (DLQI vs BSA)	11.5%

The Role of Hospital Pharmacists in Biologic Switching

Hospital pharmacists are indispensable to modern multidisciplinary psoriasis care, particularly in managing biologic switches such as to guselkumab.

Responsibilities

- **Medication Reconciliation & Safety:** Evaluating drug histories, potential interactions (notably with other immunomodulators), and contraindications.
- **Patient Education:** Counseling on injection technique, storage, side effects, and what to expect during the switch improves adherence[5].
- **Adherence Monitoring:** Pharmacist involvement, either through direct administration in clinics or follow-up calls, is linked to higher rates of medication persistence, especially for patients challenged by self-injection or complex regimens[5].
- **Therapeutic Drug Monitoring:** Collaborating with dermatologists to adjust therapy based on patient-reported outcomes, lab trends, and safety monitoring.
- **Protocol Development:** Implementing institution protocols for switching, including eligibility assessments, monitoring schedules, and documentation best practices.

Enhancing Outcomes

Active pharmacist engagement ensures not only efficient logistics but also patient-centric care, supporting both clinical outcomes (PASI/BSA) and PROs (DLQI, satisfaction).

> "Administration of biologics by a healthcare provider may improve treatment adherence and clinical outcomes compared to self-administration in selected patients with plaque psoriasis."[5]

DISCUSSION

Switching to guselkumab is supported by strong real-world durability and safety data. The integration of PROs into both pre- and post-switch assessments ensures that therapy addresses not just the skin, but the whole patient. Hospital pharmacists play a strategic and growing role in this process, improving not just drug delivery but overall dermatologic care quality[1][2][5].

CONCLUSION

Switching moderate-to-severe psoriasis patients to guselkumab offers high rates of clinical response and sustained medication persistence. Maximal benefit is achieved when patient-reported outcomes guide treatment choice and monitoring, with hospital pharmacists pivotal to safe, effective, and holistic transitions. As switching becomes more common and newer biologic options emerge, a multidisciplinary, patient-centered approach is essential for optimal success.

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