Phenomena appeared to be 3.56 ± 5.21 points, which was generally:

**Result:**
The subjective drug attitude of patients with schizophrenia and their primary caregivers was investigated and sociodemographic data were collected. Additionally, for patients, as clinical scales, drug attitude, stigma, insight into disease were assessed, and for primary caregivers, family burden, quality of life were assessed.

**Method:**
- 72 schizophrenia patients and their 72 primary caregivers targeting patients with schizophrenia and their primary caregivers were investigated and sociodemographic data were collected. Additionally, for patients, as clinical scales, drug attitude, stigma, insight into disease were assessed, and for primary caregivers, family burden, quality of life were assessed.
- The subjective drug attitude of patients with schizophrenia appeared to be 3.56 ± 5.21 points, which was generally positive.

In multiple regression analysis on quality of life, primary caregiver's monthly income, primary caregiver's education level, patient's gender, patient's treatment duration, the degree of disorganized speech among patient's clinical symptoms, patient's subjective negative drug attitude, and the degree of stigma resistance significantly explained the total mean QOL score.

In the dimensions of quality of life, the physical health dimension was correlated with primary caregiver's education level, primary caregiver's gender, patient's treatment duration, patient's subjective negative drug attitude, and the degree of patient stigma resistance. The psychological dimension was correlated only with primary caregiver's monthly income. Lastly, the environmental dimension was correlated with primary caregiver's education level, patient's treatment duration, and the degree of patient's insight into disease on positive symptoms.

**Conclusion:**
In various factors determining caregiver's level of quality of life in patients with schizophrenia, the subjective drug attitude, stigma resistance to their mental illness and insight into disease on positive symptoms were included. Therefore, provision of education regarding drug and disease will be helpful to reduce family burden and improve the quality of life of primary caregivers.

**PM407**
Factors of Caregiver Burden and Quality of Life in Caregivers of Patients with Schizophrenia
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**Abstract**

**Objective:** This study aimed to identify patient's and primary caregiver's factors that may affect family burden of primary caregivers targeting patients with schizophrenia and their primary caregivers and furthermore to investigate the influence of primary caregiver's quality of life.

**Methods:**
- 72 schizophrenia patients and their 72 primary caregivers were investigated and sociodemographic data were collected. Additionally, for patients, as clinical scales, drug attitude, stigma, insight into disease were assessed, and for primary caregivers, family burden, quality of life were assessed.

**Result:**
The subjective drug attitude of patients with schizophrenia appeared to be 3.56 ± 5.21 points, which was generally positive.

In multiple regression analysis on quality of life, primary caregiver's monthly income, primary caregiver's education level, patient's gender, patient's treatment duration, the degree of disorganized speech among patient's clinical symptoms, patient's subjective negative drug attitude, and the degree of stigma resistance significantly explained the total mean QOL score.

In the dimensions of quality of life, the physical health dimension was correlated with primary caregiver's education level, primary caregiver's gender, patient's treatment duration, patient's subjective negative drug attitude, and the degree of patient stigma resistance. The psychological dimension was correlated only with primary caregiver's monthly income. Lastly, the environmental dimension was correlated with primary caregiver's education level, patient's treatment duration, and the degree of patient's insight into disease on positive symptoms.

**Conclusion:**
In various factors determining caregiver's level of quality of life in patients with schizophrenia, the subjective drug attitude, stigma resistance to their mental illness and insight into disease on positive symptoms were included. Therefore, provision of education regarding drug and disease will be helpful to reduce family burden and improve the quality of life of primary caregivers.

**PM409**
Paliperidone Palmitate 3-Monthly vs. 1-Monthly Injectable in Schizophrenia Patients with or without Prior Exposure to Oral Risperidone or Paliperidone
Maui Mathews1, Huiling Pei1, Adam Savitz1, Isaac Nuamah1, Erica Elefant1, David Hough1, Larry Alpha1, Srihari Gopal1

**Abstract**

**Objective:** A post-hoc subgroup analysis was performed to compare outcomes following administration of paliperidone palmitate 3-monthly (PP3M) versus 1-monthly (PP1M) in patients with schizophrenia previously treated/not treated with oral risperidone/paliperidone (RIS/PALI) before study entry.

**Methods:**
- Patients received PP1M (50, 75, 100, or 150 mg eq.) during 17-week open-label (OL) phase, randomized (1:1) to PP3M (175, 263, 350, or 525 mg eq.) or PP1M (50, 75, 100, or 150 mg eq.) during 48-week double-blind (DB) phase. Based on prior RIS/PALI exposure, outcomes were compared between two subgroups: recent-at most 28 days of RIS/PALI exposure with last dose within 14 days before study entry; no=no RIS/PALI exposure within 60 days before study entry.

**Results:**
- 452 patients had received recent RIS/PALI (n=323 [71%] randomized to PP3M=166; PP1M=157), and 709 did not receive RIS/PALI (n=506 [71%] randomized to PP3M=254; PP1M=252).
Improvements in PANSS scores following OL PP1M were similar in recent RIS/PALI (mean [SD] of -18.3 [17.96]) and no prior RIS/PALI (-21.1 [16.40]) subgroups at OL endpoint. Relapse-free rates during DB phase were comparable across recent RIS/PALI (PP3M: 89.7%; PP1M: 87.1%, 95% CI for difference: [-4.7; 10.0]) and no RIS/PALI subgroups (PP3M: 91.6%; PP1M: 90.8%, 95% CI for difference: [-4.5; 6.0]). Incidences of extrapyramidal symptom-related adverse events were: recent RIS/PALI (OL PP1M:12.4%; DB: PP3M:7.8% vs PP1M:7.0%) and no RIS/PALI (OL PP1M: 11.4%; DB: PP3M: 7.1% vs PP1M: 6.7%).

Conclusion: This exploratory analysis suggests comparable treatment outcomes and tolerability following PP3M or PP1M administration in patients with schizophrenia, irrespective of prior treatment with/without oral RIS/PALI.

PM410
Comparison of 3-Monthly versus 1-Monthly Paliperidone Palmitate Long-Acting Therapy by Duration of Illness in Patients with Exacerbated Schizophrenia
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Abstract
Background: This post-hoc analysis was performed to compare the overall incidence, time-to-onset (TTO) and time-to-resolution (TTR) of extrapyramidal symptoms (EPS)-related adverse events (AEs) after treatment with paliperidone palmitate (PP) 3-monthly (PP3M) vs. 1-monthly (PP1M) long-acting injectable in patients with schizophrenia.

Methods: EPS-related AEs were summarized by grouped terms (Overall and further classified into Dystonia, Dyskinesia, Hyperkinesia, Parkinsonism and Tremor), study phases (open-label [OL]: PP1M, double-blind [DB]: PP1M or PP3M), TTO and TTR, and descriptively compared. TTO and TTR were further analyzed by final OL dose (50/75 mg eq., 100 mg eq. and 150 mg eq.) and age (18–25, 26–50 and 50+ years) subgroups.

Results: Overall incidence of EPS-related AEs was 12.6% (PP1M) during OL phase, reducing to 8.3% (PP3M) and 7.4% (PP1M) during DB phase. Median TTO for all EPS-related AEs was 17 days (range: 1–120) after PP1M OL treatment; 115 days (range: 1–323) after treatment with PP3M and PP1M, respectively (DB phase). Median TTR was 36.5 days (range: 1–127) in PP1M group (OL), and was generally similar for PP3M (91 days [range: 1–336]) vs. PP1M (85.5 days [range: 1–337]) during DB phase. Overall median TTO and TTR values were comparable between PP3M and PP1M formulations. Subgroup analysis revealed no clear dose-response or age-related differences in TTO and TTR of EPS-events for the two formulations.

Discussion: The overall incidence of EPS-related AEs, TTO and TTR of EPS-events were found to be comparable in patients with schizophrenia receiving either PP3M or PP1M long-acting injectable.

PM411
Evaluation of Paliperidone Palmitate Long-Acting Injectable Therapy by Duration of Illness in Patients With Schizophrenia

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Abstract
Introduction: Guidelines specify long-acting injectable (LAI) antipsychotic use earlier in schizophrenia because it may delay functional deterioration. Paliperidone palmitate (PP) LAI therapy in patients with schizophrenia was evaluated by duration of illness.

Methods: Post hoc analysis of a randomized, double-blind (DB), parallel-group, multicenter, noninferiority study (NCT01515423). Subjects with schizophrenia were treated with PP once-monthly (PP1M) in a 17-week open-label (OL) phase. Upon meeting clinical stabilization criteria, they were randomized 1:1 to PP1M or PP once-every-3-months (PP3M) in a 48-week relapse-prevention phase. Subjects were evaluated based on duration of illness (<5, 6–10, and >10 years since diagnosis); PP1M and PP3M results were combined. Positive and Negative Syndrome Scale (PANSS) and Personal and Social Performance (PSP) scale scores and functional remission rates (PSP >70 from week 13 [OL] and during DB phase for ≥6 months) were analyzed. No adjustment was made for multiplicity.

Results: 532, 337, and 558 subjects diagnosed with schizophrenia ≤5, 6–10, and >10 years ago, respectively, entered OL phase. Of these, 379 (71.2%), 235 (69.7%), and 380 (68.1%) met clinical stabilization criteria, they were randomized 1:1 to PP1M or PP once-every-3-months (PP3M) in a 48-week relapse-prevention phase. Subjects were evaluated based on duration of illness (<5, 6–10, and >10 years since diagnosis) compared to those with more chronic illness (>10 years).

Conclusion: Improvements were observed with PP LAIs in all subgroups, with greater improvements among patients earlier in the illness (<5 or 5–10 years) compared to those with more chronic illness (>10 years).

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PM412
Emergence of Tardive Dyskinesia upon Clozapine Treatment: A Case Report

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Abstract
Objective: Clozapine is an atypical antipsychotic drug famous for its low propensity to cause extrapyramidal symptoms, one of those mainly being tardive dyskinesia(TD). Mechanism underlying this so-called anti-TD property of clozapine is largely in a veil as well as the pathophysiology of TD itself. Furthermore, terminologies referring to TDs of varying mechanisms heretofore lack consensus among clinicians. This study introduces a case of newly emergent TD after clozapine usage, and discusses the plausible mechanism of how TD develops in varying clinical situations.

Methods & Results: We reviewed a case of a 57-year-old female with schizophrenia. She had been treated intermittently with haloperidol and a few types of small-dosage atypical antipsychotics for 5 years. She was admitted to closed ward for worsening of psychotic symptoms. Prior to that, she had been medication-free for at least 1 month. We first used paliperidone for a month, and medication was changed to clozapine due to unsatisfactory response. 1.5 month into clozapine use, the patient developed a