Among 217 patients, ≥61% were male in each group. Median PFS and median OS were clinically meaningful in all treatment groups. Dose reductions were most frequent in the ≥70 B group (60–70 BR, n=36; ≥70 BR, n=95). Few patients were hospitalized (< 2%). During the chart-review period, antiemetics were given to 72% of patients. There were 28 deaths at the time of analysis.

Patients were divided into the following age/treatment regimen for older CLL patients or those with comorbidities: (1) ≤60 B, bendamustine alone or with rituximab; (2) 60–70 BR, bendamustine and rituximab; (3) ≥70 BR, bendamustine and rituximab plus prednisone. OAR= complete response + partial response.

Mean dose per cycle ranged from 133.6 to 165.9 mg/m². Safety measures included AEs and use of concomitant medications. The most common comorbidities at diagnosis (≥10.0% in ≤60 BR, 60–70 B, and ≥70 BR groups, respectively) were hypertension (17% and 18%, respectively); however, dose delays were infrequent (< 5% in all groups). There were 28 deaths at the time of analysis. The most common (≥20%) grade 3/4 hematologic AEs were febrile neutropenia in the ≤60 BR and ≥70 BR groups; leukopenia in all groups except 60–70 BR, and thrombocytopenia in the ≤60 BR group only (Table 4).

The most common comorbidities at diagnosis (≥10.0% in all groups) were primary hyperlipidemia (14%–25%), chronic rheumatic heart disease (12.5% in the 60–70-B group and 10.1% in the ≥70-B group), chronic obstructive pulmonary disease (12.5% in the ≥70-B group), and unspecified diabetes mellitus (11.4% in the ≥70-B group).

Effective Measures
Observations were ≥83% in all groups (Table 2; 9 patients in the ≤60-B group, 9 patients in the ≥70-B group, and 1 patient each in the 60–70-B and ≥70-B groups had stable disease; 1 patient each in the 60–70-B and ≥70-B groups had progressive disease, and 1 in the ≥70-B group did not achieve a response).

A total of 30 patients were hospitalized (Table 3). During the chart-review period, antihypertensives were commonly used (79% in any group), but glycolytic calory-stimulating factor was infrequently used (Table 3).

Tolerability
Dose delays were most frequent in the ≥70-B group (67%) and least in the 60–70-B and 60–70-BR groups (17% and 16%, respectively), although dose delays were infrequent in all groups (Table 3). There were 28 deaths at the time of analysis. The most common (≥20%) grade 3/4 hematologic AEs were febrile neutropenia in the ≤60-B and ≥70-BR groups; leukopenia in all groups except 60–70-B, and thrombocytopenia in the ≥70-B group only (Table 4).

The cytotoxic activity of bendamustine against CLL-derived cell lines is antagonized by rituximab via a posttranslational modification.

Large cohort studies have shown overall response rates (ORRs), complete response (CR) + partial response (PR) of 68% (110/162) for bendamustine and 86% (150/174) for bendamustine plus rituximab, respectively (Table 1; Table 2) [1]. A U.S. chart review of 91 patients aged ≥70 years (median age at beginning of therapy 75.4 and 74.7 years, respectively) showed ORRs of 59% (50/85) for bendamustine alone and 67% (46/69) for BR [2].

The National Comprehensive Cancer Network recommends BR as a preferred chemoinmunotherapeutic regimen for older CLL patients or those with comorbidities; in younger patients, the guidelines list BR as a preferred regimen [3]. This retrospective analysis assessed real-world efficacy and safety of bendamustine monotherapy or BR in 3 age groups of treatment-naïve older CLL patients from a large registry.