International Working Group criteria, overall response rate (ORR) was 58% (15/26 pts): 5 pts (19%) achieved complete remission (CR), while 10 pts (39%) showed an hematologic improvement (HI). 11/26 pts (42%) maintained a stable disease (SD). Generally the drug was very well tolerated. The most commonly reported hematologic toxicities were neutropenia (55%) and thrombocytopenia (20%). 4/30 pts (13%) died during treatment. The median duration of response was 5 months (range 1–14 months). Surprisingly, 3/15 patients (2 CR and 1 HI erythroid) showed a long duration of response (11, 13 and 14 months, respectively), still ongoing, after discontinuation of AZA. Preliminary data on the lipid signalling pathways suggested a direct correlation between the demethylating effect on PI-PLC-beta1 and responsiveness to treatment.

Conclusion: Our study shows that AZA low-dose schedule may be a feasible and effective treatment for low-risk MDS pts and may induce durable responses. Despite AZA safety, extreme caution is needed in pts with age-related comorbidities and/or with severe neutropenia or thrombocytopenia, especially in low-risk MDS. Furthermore, PI-PLC-β1 demethylation and gene expression could represent a new biological marker to predict the clinical response to AZA.

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A 12-month follow-up of an ongoing prospective, non-interventional, multicenter registry in iron overloaded patients with lower-risk myelodysplastic syndromes

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Introduction: A significant percentage of patients with lower-risk myelodysplastic syndromes (MDS) require ongoing blood transfusions for prolonged periods. This registry was designed to study the impact of iron overload and chelation on survival and organ function in MDS. Baseline and 12 month data are presented.

Methods: An ongoing, prospective, non-interventional, multicenter, 5-year registry in 107 US centers, enrolling 600 patients (aged ≥18 years) with lower-risk MDS (WHO, FAB and/or IPSS criteria) and transfusional iron overload (serum ferritin levels ≥1000 μg/L and/or having received ≥20 cumulative packed red blood cell units and/or an ongoing transfusion requirement ≥6 units every 12 weeks). Chelation therapy was not mandated. Follow-up was performed at least every 6 months until a maximum of 60 months or death. Recommended assessments included serum ferritin levels, echocardiograms, and endocrine and hematological status.

Table 1. MDS classification of patients by WHO, FAB and IPSS

Classification	n	%
WHO	191	31.8
Refractory anemia (RA)	51	26.7
RA with ringed sideroblasts (RARS)	74	38.7
Refractory cytopenia with multilineage dysplasia (RCMD)	33	17.3
RCMD with ringed sideroblasts	15	7.9
MDS associated with isolated del 5q	18	9.4
FAB	117	19.5
RA	45	38.5
RARS	46	39.3
RA with excess blasts	26	22.2
IPSS	292	48.7
Low	111	38.0
Int-1	181	62.0

Results: As of October 1, 2010, 600 patients had enrolled in the registry. Median age was 76.0 years (range 21–99); 347 (57.8%) patients were male; 520 (86.7%) Caucasian, 37 (6.2%) Hispanic, 33 (5.5%) African American, 6 (1.0%) Asian, 2 (0.3%) Native American, and 2 (0.3%) other. There were 265 (44.2%) patients with a history of cardiac disease. The MDS classification at registration of the patients by the World Health Organization (WHO), French-American-British (FAB) and International Prognostic Scoring System (IPSS) criteria are summarized in Table 1.

Results for patients with 12 months of follow-up data are summarized in Table 2.

Table 2. Transfusion requirements and serum ferritin levels for Months 0–12 (n = 330)*

Variable (n)	Median	Range
Years on transfusions (n = 271)	3.0 years	0–54 years
Lifetime transfusions (n = 324)	16.0	0–359
Lifetime units (n = 314)	28.0 units	0–620 units
Serum ferritin		
Baseline (n = 279)	1408 μg/L	3–6656 μg/L
Month 6 (n = 155)	1501 μg/L	35–9245 μg/L
Month 12 (n = 123)	1734 μg/L	0–9333 μg/L

141 patients discontinued (114 deaths, 14 relocations, 6 lost to follow-up, 2 withdrew consent, and 5 other).

Duration of chelation is summarized in Table 3.

Table 3. Type and duration of chelation for Months 0–12 (n = 330)

Time period	Number of patients on chelation therapy	Type of chelation, n (%)	Median duration of treatment (days)
Baseline	111 (33.6%)	Deferasirox, 96 (29.1%)	253.5
		Deferiprone, 1 (0.3%)	373.0
		Deferoxamine, 26 (7.9%)	522.0
		Other, 2 (0.6%)	N/A
Month 6	121 (36.7%)	Deferasirox, 106 (32.1%)	182.0
		Deferiprone, 0	–
		Deferoxamine, 16 (4.8%)	182.0
		Other, 1 (0.3%)	N/A
Month 12	134 (40.6%)	Deferasirox, 119 (36.1%)	322.0
		Deferiprone, 0	–
		Deferoxamine, 17 (5.2%)	364.0
		Other, 1 (0.3%)	N/A

N/A, not available.

Conclusions: Baseline data are presented and reveal a high median serum ferritin as well as a high ongoing transfusion burden. Throughout the 12 month follow-up period, only 134 (41%) patients received chelation in spite of high serum ferritin levels. Ongoing analysis will evaluate changes in serum ferritin as well as clinical outcomes in chelated and unchelated patients.

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Continuous erythropoietin receptor activator in myelodysplastic syndromes (case report)

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Background: C.E.R.A. (Continuous Erythropoietin Receptor Activator) is an innovative agent with unique erythropoietin receptor activity and prolonged half-life. We evaluated C.E.R.A. administered, every two weeks, to patients with symptomatic anemia and low or Intermediate-1 Myelodysplastic Syndromes (MDS).

Methods: Low risk MDS patients under erythropoietin treatment were included. All patients received C.E.R.A. subcutaneously for 12 weeks; dose was 200 or 250 mcg every two weeks. Primary endpoint was to assess average Hemoglobin level between baseline and end of initial treatment (defined as last Hemoglobin measurement before dose reduction or transfusion, or the value at week 4). Neutrophil, platelet count or non hematologic side effects were taken into account. Drug tapering or withdrawing were allowed.

Results: Demographic characteristics are shown on table 1. Three patients (# 1, 2 and 3) received 250 mcg and 2 patients (#4 and 5)