OMALIZUMAB RETREATMENT OF PATIENTS WITH CHRONIC IDIOPATHIC URTICARIA/SPONTANEOUS URTICARIA (CIU/CSU) FOLLOWING RETURN OF SYMPTOMS: PRIMARY RESULTS OF THE OPTIMA STUDY

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INTRODUCTION

- The OPTIMA (efficacy of optimized retreatment and step-up therapy with omalizumab in patients with chronic idiopathic/spontaneous urticaria [CIU/CSU]; NCT02161562) study was designed to address some of the key gaps in the knowledge of optimal CIU/CSU treatment with omalizumab
- Owing to the intermittent nature of CIU/CSU, physicians may want to consider stopping omalizumab treatment in patients who are symptom free for a period of time
- Symptoms may re-emerge after a period of treatment withdrawal; the primary objective of the study was therefore to determine the efficacy and safety of retreatment in patients who respond to an initial course of omalizumab

OBJECTIVES

- **Four objectives were to be answered in OPTIMA:**
  - If a patient is well controlled and therefore treatment is stopped, will the patient relapse? How long will it take to relapse?
  - If treatment is restarted, will the patient respond to retreatment?
  - If the patient does not respond to omalizumab 150 mg, will step-up therapy help?
  - If the patient does not respond to omalizumab 300 mg, will treatment extension help?
- **This poster will cover the first two questions**

METHODS

Study design

- OPTIMA is a Phase 3b, international, multicenter, randomized, open-label, noncomparator study.[1] For details about the study design, please see the companion poster being presented at this congress (Sussman, *et al.* WCDC 2018)[1,2]
- Patients with CIU/CSU who were symptomatic despite H_1-antagonists were randomized 4:3 to omalizumab 150 mg or 300 mg for 24 weeks (1st dosing period)
- Based on weekly Urticaria Activity Score (UAS7), patients entered one of the following phases: treatment withdrawal (if UAS7 ≤6), step-up to 300 mg (if 150 mg initially and UAS7 >6 at Weeks ≥8 to 24), or continued treatment for 12 more weeks (if 300 mg initially and UAS7 >6 at Week 24)

Figure 1. Study design for retreated patients

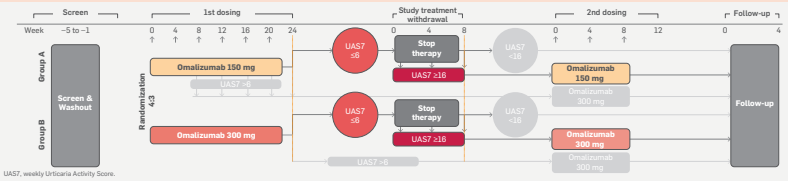
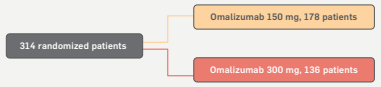


Figure 2. Patient randomization ratio



- If patients relapsed (UAS7 ≥16) upon withdrawal, they were **retreated with their starting dose for 12 weeks**

Inclusion criteria

- Men or women at least 18 years of age
- Diagnosis of CIU/CSU and the presence of symptoms for ≥6 months prior to the screening visit
- Patients must have been on an approved dose of nonsedating H_1-antihistamine for CIU/CSU, and no other concomitant CIU/CSU treatment, for at least the 7 consecutive days immediately prior to the randomization visit and must have documented current use on the day of the randomization visit
- UAS7 ≥16 (scale 0–42) and itch component of UAS7 ≥8 (scale 0–21) during 7 days prior to randomization

Exclusion criteria

- Patients with a clearly defined underlying etiology for chronic urticaria other than CIU/CSU
- Patients with urticarial vasculitis, urticaria pigmentosa, erythema multiforme, mastocytosis, hereditary or acquired angioedema, lymphoma or leukemia, active atopic dermatitis, bullous pemphigoid, dermatitis herpetiformis, senile pruritus, or other skin disease associated with itch that could interfere with study outcomes
- Patients with a history of malignancy of any organ system
- Patients should stay on same approved dose of nonsedating H_1-antihistamine during all trial duration. No rescue medication is allowed

RESULTS

Baseline characteristics

Table 1. Demographics and baseline characteristics

Characteristic	Omalizumab 150 mg (n=178)	Omalizumab 300 mg (n=136)	Overall (N=314)
Age, mean (range), years	46.7 (18–79)	45.8 (20–78)	46.3 (18–79)
Gender, %			
Male	27.0	27.2	27.1
Female	73.0	72.8	72.9
Race, %			
White	76.4	83.1	79.3
Asian	8.4	7.4	8.0
Black	5.6	4.4	5.1
Am. Indian/Alaska Native	1.1	2.2	1.6
Other	8.4	2.9	6.1
Time to CIU/CSU symptoms, n (%)			
≤1 year	28 (15.7)	22 (16.2)	50 (15.9)
>1–≤2 years	25 (14.0)	25 (18.4)	50 (15.9)
>2–10 years	84 (47.2)	54 (39.7)	138 (43.9)
>10 years	41 (23.0)	35 (25.7)	76 (24.2)
Baseline UAS7, mean (range)	29.7 (16.0–42.0)	30.0 (16.0–42.0)	29.8 (16.0–42.0)
# Prior medications used for CIU/CSU, mean (range)	1.8 (0.0–12.0)	2.1 (0.0–8.0)	1.9 (0.0–12.0)

CIU/CSU, chronic idiopathic/spontaneous urticaria; UAS7, weekly Urticaria Activity Score.

Figure 3. Disposition after withdrawal period – patients to receive retreatment

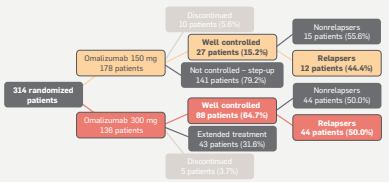
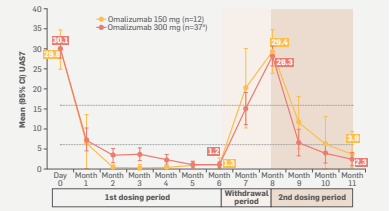


Table 2. Mean time to relapse

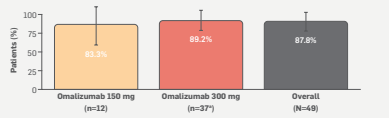
Omalizumab 150 mg	Omalizumab 300 mg	Overall
4.8 weeks	4.7 weeks	4.7 weeks

Figure 4. Mean UAS7 of retreated patients throughout the study



*7 out of 44 patients on omalizumab 300 mg did not complete the 2nd dosing period or did not submit the participant diary as per protocol. CI, confidence interval; UAS7, weekly Urticaria Activity Score.

Figure 5. Proportion of patients regaining symptom control upon retreatment



*7 out of 44 patients on omalizumab 300 mg did not complete the 2nd dosing period or did not submit the participant diary as per protocol. Error bars represent 95% confidence intervals.

CONCLUSIONS

- **After being well controlled (UAS7 ≤6), upon withdrawal 44.4% of patients on omalizumab 150 mg and 50.0% of patients on omalizumab 300 mg relapsed (UAS7 ≥16)**
- **The overall time to relapse for both dosages was 4.7 weeks**
- **Retreatment with both dosages is effective. Overall, 87.8% of patients regained symptom control upon retreatment, after initially being well controlled and subsequent relapse**

REFERENCES

1. ClinicalTrials.gov – NCT02161562.
2. Sussman G, *et al.* Design and rationale of the OPTIMA study: retreatment or step-up therapy with omalizumab in patients with chronic idiopathic/spontaneous urticaria (CIU/CSU). WCDC 2018. Poster.

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All authors participated in the development of the poster and approved the final poster for presentation. Editorial assistance in the development of this poster was provided by Jessica Donaldson-Jones of Fishawack Communications Ltd, Abingdon, UK.

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DISCLOSURES

Authors declare the following, real or perceived conflicts of interest: **GS, JH, WG, CL,** and **WHY** received honoraria as investigators and consultants. **GS** received honoraria as speaker of this corresponding study. **OC, AV, FdT,** and **LR** are employees of Novartis Pharmaceuticals.

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