

Hello, my name is _____, and I am a (Medical Science Liaison/Medical Managed Care Director) at Sanofi Genzyme. Today I will review clinical highlights of the expanded indication for DUPIXENT® (dupilumab). Please refer to the full Prescribing Information for additional details.

DUPIXENT is a human monoclonal IgG4 antibody that binds to the interleukin-4 receptor alpha subunit and inhibits interleukin-4 and interleukin-13 signaling.

[Dupixent_PI,2020;p16,section12.1,para1] DUPIXENT is not classified as an immunosuppressant by the World Health Organization anatomical therapeutic chemical classification system.^[WHOCC (https://www.whooc.no/atc_ddd_index/?code=D11AH05)] DUPIXENT is available in a single-dose pre-filled syringe for subcutaneous injection, and its current indications include:

- For the treatment of patients aged 6 years and older with moderate-to-severe atopic dermatitis (AD) whose disease is not adequately controlled with topical prescription therapies or when those therapies are not advisable. DUPIXENT can be used with or without topical corticosteroids (TCS).^[Dupixent_PI,2020;p3,section 1.1] Topical calcineurin inhibitors may be used, but they should be reserved for problem areas only, such as the face, neck, intertriginous, and genital areas.^[Dupixent_PI,2020;p4,section 2.1,para3]
- As an add-on maintenance treatment in patients with moderate-to-severe asthma (AS) aged 12 years and older with an eosinophilic phenotype or with oral corticosteroid–dependent asthma. DUPIXENT is not for the relief of acute bronchospasm or status asthmaticus.^[Dupixent_PI,2020;p3,section 1.2]
- As an add-on maintenance treatment in adult patients with inadequately controlled chronic rhinosinusitis with nasal polyposis (CRSwNP).^[Dupixent_PI,2020;p3,section 1.3]

The table below provides the recommended dose for each indication. [Dupixent_PI,2020;p3,section 2.1.para1-2,p4,table1, p4,section 2.2.para1.bullets1-3,p4,section 2.3]

| Indication | AD | | | | Asthma | CRSwNP | |
|------------------------------|-----------------------|------------------------------------|---------------|---------|----------------|---------|---|
| | Adults (≥18 years) | Pediatric patients (6-17 years) | | | | | Adults and adolescents (≥12 years) ^a |
| | | ≥15 to <30 kg | ≥30 to <60 kg | ≥60 kg | | | |
| Initial dose (mg) | 600 | 600 | 400 | 600 | 400 or 600 | 300 | |
| Subsequent dose (mg) regimen | 300 Q2W | 300 Q4W | 200 Q2W | 300 Q2W | 200 or 300 Q2W | 300 Q2W | |

^aFor patients with oral corticosteroid-dependent asthma or with co-morbid moderate-to-severe AD for whom DUPIXENT is indicated: start with an initial dose of 600 mg followed by 300 mg Q2W. [Dupixent_PI,2020;p4,section 2.2.para1.bullet3]

Clinical Trial Efficacy

Atopic Dermatitis

The approval of DUPIXENT for subjects with moderate-to-severe AD not adequately controlled by topical medication(s) was based primarily on the results of 5 randomized, double-blind, placebo-controlled trials (known in the Prescribing Information as Trials 1, 2, 3, 6 and 8). A total of 2737 subjects aged 6 years and older were enrolled. [Dupixent_PI,2020;p18,section 14.1.para1,ln1-4,p21,para3,ln1-4,p22,para2,ln1-4] Additional trials considered included Trials 4 (dose-ranging trial), 5 (evaluating multiple DUPIXENT monotherapy dose regimens for maintaining treatment response), and 7 (pediatric open-label extension). [Dupixent_PI,2020;p7,section6.1,para2,ln1-3,p8,para4,ln1-2,p9,para2,ln1-2,p21,para2,ln1-3]

Across trials of DUPIXENT both as monotherapy and with concomitant TCS, in adult subjects and in pediatric subjects 6 years of age and older, the primary endpoints were met; a greater proportion of subjects treated with DUPIXENT versus placebo achieved an Investigator’s Global Assessment (IGA) score of 0 (clear) or 1 (almost clear) from baseline to week 16.

[Dupixent_PI,2020;p19,section 14.1,Table5,row4,p21,Table7.row2,p23,Table8.row4] Additionally, a greater proportion of subjects randomized to DUPIXENT versus placebo achieved key secondary endpoints of at least 75% improvements in Eczema Area and Severity Index score from baseline (EASI-75) [Dupixent_PI,2020;p19,section 14.1,Table5,row5,p21,Table7.row3,p23,Table8.row4] and an improvement in the Peak Pruritus Numeric Rating Scale (NRS) of at least 4 points. [Dupixent_PI,2020;p19,section 14.1,Table5,row8,p21,Table7.row5,p23,Table8.row4]

Adult Trials 1 and 2 (DUPIXENT 300 mg Q2W) and Adolescent Trial 6 (DUPIXENT 200 mg Q2W [<60 kg] or 300 mg Q2W [≥ 60 kg]) in subjects with moderate-to-severe AD, 16 weeks

- 38%, 36%, and 24% of subjects in Trials 1, 2, and 6, respectively, achieved an IGA score of 0 or 1 (IGA [0,1]) with DUPIXENT versus 10%, 9%, and 2% with placebo. [Dupixent_PI,2020;p19,section14.1,Table5,row4,col1-5;p21,Table7,row2]
- 51%, 44%, and 42% of subjects in Trials 1, 2, and 6, respectively, achieved EASI-75 with DUPIXENT versus 15%, 12%, and 8% with placebo. [Dupixent_PI,2020;p19,section 14.1,Table5,row5,col1-5;p7,Table7,row3]
- Adult subjects in Trial 1 experienced a ≥ 4 -point reduction in itch after the first dose, as measured at week 2 (~9% with DUPIXENT 300 mg Q2W vs ~3% with placebo, $P=0.0097$) [Simpson et al. *NEJM*, 2016;p2342,table2,row9,col1-3; Dupixent_PI,2020;p20,Figure1; Dupixent HCP website (<https://www.dupixenthcp.com/atopicdermatitis/efficacy-safety/adolescent-pruritus-nrs-clinical-trial>)]; in adolescent subjects, improvement in itch (4-point reduction in peak pruritus NRS score) was seen as early as week 4 (22% with DUPIXENT 200/300 mg Q2W vs 5% with placebo). [Simpson et al. *JAMA Dermatol*,2020;56(1):44-56,p8,table2,row1,3,col1,2,4]

Adult Trial 3 (DUPIXENT 300 mg Q2W plus topical corticosteroids in subjects with moderate-to-severe AD, 16 weeks)

- 39% of subjects achieved IGA (0,1) with DUPIXENT plus TCS versus 12% with placebo plus TCS. [Dupixent_PI,2020;p19,section 14.1,Table5,row4,col6-7]
 - At week 52, 36% of subjects achieved IGA (0,1) with DUPIXENT plus TCS versus 13% with placebo plus TCS. [Dupixent_PI,2020;p20,section 14.1,Table6,row7]
- 69% of subjects achieved EASI-75 with DUPIXENT plus TCS versus 23% with placebo plus TCS. [Dupixent_PI,2020;p19,section 14.1,Table5,row5,col6-7]

Pediatric Trial 8 (DUPIXENT 300 mg Q4W plus topical corticosteroids or 200 mg Q2W plus topical corticosteroids in subjects aged 6 to 11 years with severe AD, 16 weeks)

- Among subjects with concomitant TCS use, 30% and 39% of subjects achieved IGA (0,1) with DUPIXENT 300 mg Q4W (subjects <30 kg) and 200 mg Q2W (subjects ≥ 30 kg), respectively, versus 13% (subjects <30 kg) and 10% (subjects ≥ 30 kg) with placebo. [Dupixent_PI,2020;p23,Table8,row1-3]
- Among subjects with concomitant TCS use, 75% of subjects achieved EASI-75 with DUPIXENT 300 mg Q4W (subjects <30 kg) and 200 mg Q2W (subjects ≥ 30 kg), respectively, versus 28% (subjects <30 kg) and 26% (subjects ≥ 30 kg) with placebo. [Dupixent_PI,2020;p23,Table8,row1,2,4]

Asthma

The approval of DUPIXENT for subjects with moderate-to-severe AS was based primarily on three randomized, double-blind, placebo-controlled, multicenter Phase 3 trials (known in the Prescribing Information as AS Trials 1, 2, and 3). A total of 2888 subjects aged 12 years and older were evaluated. ^[Dupixent_PI,2020;p24,section 14.2,para1,ln1-3]

AS Trial 1 (24 weeks) and AS Trial 2 (52 weeks) [both DUPIXENT 200 mg or 300 mg Q2W]

- The adult and adolescent subjects receiving DUPIXENT had significant reductions in the rate of AS exacerbations and improvements in lung function compared with those receiving placebo.
 - The relative risk for exacerbations was 0.52 (95% CI: 0.41, 0.66) and 0.54 (95% CI: 0.43, 0.68) for DUPIXENT 200 mg and 300 mg Q2W, respectively. ^[Dupixent PI,2020;p26,section 14.2,para1,ln9-11]
 - In subjects with blood eosinophils ≥ 150 cells/ μL , the relative risk was 0.44 (95% CI: 0.34, 0.58) and 0.40 (95% CI: 0.31, 0.53) for DUPIXENT 200 mg and 300 mg Q2W, respectively. ^[Dupixent HCP website (<https://www.dupixenthcp.com/asthma/efficacy/exacerbations>)]
 - In AS Trial 2, a higher proportion of subjects reported an improvement of at least 0.5 points on the Asthma Control Questionnaire (ACQ-5) with DUPIXENT versus placebo (200 mg versus placebo: OR 1.37, 95% CI 1.01, 1.86; 300 mg versus placebo: OR 1.28, 95% CI 0.94, 1.73). ^[Dupixent PI,2020;p30,section 14.2,para1,bullet1]
 - Significant increases in pre-bronchodilator FEV₁ at week 12 were observed, with a mean treatment difference (placebo subtracted) of 0.14 L (95% CI: 0.08, 0.19) and 0.13 L (95% CI: 0.08, 0.18) for DUPIXENT 200 mg and 300 mg Q2W, respectively. ^[Dupixent PI,2020;p28,section 14.2,para1,ln6-8]
 - In subjects with blood eosinophils ≥ 150 cells/ μL , the LS mean difference in FEV₁ was 0.17 (95% CI: 0.11, 0.23, $P < 0.0001$) and 0.15 (95% CI: 0.08, 0.21, $P < 0.0001$) for DUPIXENT 200 mg and 300 mg Q2W, respectively. ^[Castro et al, ERJ Open Res, 2020,Jan;6(1):00204-2019.supplementary appendix,p3,TableS1,row1,2,2,col1,3,5,p4,row1,3,4,col1,3,5]
 - The effect of DUPIXENT in reduction of AS exacerbations and improvement in FEV₁ was greater with increasing baseline blood eosinophil counts. ^[Dupixent PI,2020;p26,para2,ln1-3,p28,para2] In subjects with baseline blood eosinophils < 150 cells/ μL , the effect was similar between the DUPIXENT and placebo groups. ^[Dupixent PI,2020;p26,para2,ln5-6, p27,Figure 4,p29,Figure 6]

- Additionally, subjects receiving DUPIXENT 200 mg or 300 mg Q2W had reduced rates of hospitalizations and/or emergency room visits due to exacerbations, compared with placebo. The relative risk for utilization was 0.53 (95% CI: 0.28, 1.03) and 0.74 (95% CI: 0.32, 1.70) with DUPIXENT 200 mg or 300 mg Q2W, respectively. ^[Dupixent PI,2020;p27,para1 (entire)]

AS Trial 3 (DUPIXENT 300 mg Q2W plus oral corticosteroid, 24 weeks)

- Adult and adolescent subjects receiving DUPIXENT achieved greater reductions in daily maintenance oral corticosteroid (OCS) dose while maintaining asthma control, with a mean percent reduction in daily OCS dose from baseline of 70% in subjects receiving DUPIXENT (95% CI: 60%, 80%) compared with 42% in subjects receiving placebo (95% CI: 33%, 51%). ^[Dupixent PI,2020;p30, para5,ln1-5]
 - A total of 54 (52%) subjects receiving DUPIXENT versus 31 (29%) subjects receiving placebo had a 100% reduction in their OCS dose. ^[Dupixent PI,2020;p31,para1,ln1-3]
- At 24 weeks, asthma exacerbations were lower in subjects receiving DUPIXENT compared with placebo; the relative risk for severe exacerbations was 0.41 (95% CI 0.26, 0.63). ^[Dupixent PI,2020;p31,para2,ln1-4] Improvement in pre-bronchodilator FEV₁ from baseline to week 24 was greater in subjects receiving DUPIXENT compared with those receiving placebo; the LS mean difference for DUPIXENT versus placebo was 0.22 L (95% CI: 0.09, 0.34). ^[Dupixent PI,2020;p31, para2,ln4-7]

Chronic Rhinosinusitis With Nasal Polyposis

The FDA approval of DUPIXENT for adults with CRSwNP was based primarily on the results of two randomized, double-blind, parallel-group, multicenter, placebo-controlled studies (known in the Prescribing Information as CSNP Trial 1 and CSNP Trial 2). A total of 724 subjects aged 18 years and older on background intranasal corticosteroids were enrolled. These studies included subjects with uncontrolled CRSwNP despite treatment with systemic corticosteroids (SCS) in the past 2 years (or intolerance/contraindication to SCS) or prior sino-nasal surgery. ^[Dupixent PI,2020;p31,section 14.3,para1,ln1-6]

CSNP Trial 1 and CSNP Trial 2

At week 24, DUPIXENT significantly improved bilateral endoscopic Nasal Polyps Score (NPS) and nasal congestion/obstruction (NC) score in subjects treated with DUPIXENT 300 mg Q2W. ^[Dupixent PI,2020;p33,section 14.3, para1,ln1-2,para2,ln1,p34,para1,ln2-3,p33,table13]

- 34% and 28% reductions in NPS were observed compared with 3% and 2% worsening with placebo. [Dupixent HCP website (<https://www.dupixenthcp.com/crswnp/efficacy>)]
- 59% and 51% improvements in NC score were observed compared with 18% and 16% improvements with placebo. [Dupixent HCP website (<https://www.dupixenthcp.com/crswnp/efficacy>)]
- In both trials, improvements in NC score were observed as early as the first assessment at week 4 and sustained through week 52. [Dupixent_PI,2020;p34,para1,ln2-3, Dupixent HCP website (<https://www.dupixenthcp.com/crswnp/efficacy>)]
- In prespecified pooled analyses of the two studies through week 52, treatment with DUPIXENT resulted in significant reduction of SCS use (74%; HR of 0.26; 95% CI: 0.18, 0.38) and need for sino-nasal surgery compared with placebo (83%; HR of 0.17; 95% CI 0.07, 0.46). [Dupixent_PI,2020;p34,para5(entire),p35,para1(entire)]
- In subjects with co-morbid AS, improvements in pre-bronchodilator FEV₁ were similar to those in patients in the AS program. [Dupixent_PI,2020;p35,para3(entire)]
 - Increase in pre-bronchodilator FEV₁ at week 24 was greater in subjects receiving DUPIXENT compared with those receiving placebo (LS mean difference 0.21 L [95% CI: 0.13, 0.29], *P*<0.0001). [Dupixent website (<https://www.dupixenthcp.com/crswnp/efficacy>), Bachert et al, Lancet, 2019, p10, Table3, row7, col10]
 - Decrease in six-item Asthma Control Questionnaire (ACQ-6) score at week 24 was greater in subjects receiving DUPIXENT compared with those receiving placebo (LS mean difference –0.82 [95% CI: –0.98, –0.67], *P*<0.0001). [Bachert et al, Lancet, 2019, p10, Table3, row8, col10]

Cross-Indication Safety

- The most common adverse reaction in subjects with AD/AS/CRSwNP was injection site reactions. [Dupixent_PI,2020;p8-10,Table2-4,p7,section6.1,para3-4, Dupixent HCP website (<https://www.dupixenthcp.com/atopicdermatitis/efficacy-safety/adolescent-safety-clinical-trial>)]
 - For AD, the most common adverse reactions (incidence ≥1%) are injection site reactions, conjunctivitis, blepharitis, oral herpes, keratitis, eye pruritus, other herpes simplex virus infection, and dry eye. [Dupixent_PI,2020;p1, adverse reactions, atopic dermatitis]
 - For asthma, the most common adverse reactions (incidence ≥1%) are injection site reactions, oropharyngeal pain, and eosinophilia. [Dupixent_PI,2020;p1, adverse reactions, asthma]
 - For chronic rhinosinusitis with nasal polyposis, the most common adverse reactions (incidence ≥1%) are injection site reactions, eosinophilia, insomnia,

toothache, gastritis, arthralgia, and conjunctivitis.^[Dupixent_PI,2020;p1,adverse reactions,chronic rhinosinusitis with nasal polyposis]

- The long-term safety of DUPIXENT through week 52 (Trial 3 and Trial 7) in adult and adolescent subjects with AD was similar to the safety profile observed at week 16, and the long-term safety profile observed in adolescents was consistent with that seen in adults with AD.^[Dupixent_PI,2020;p8,para2,p8,para4]
- The safety profile of DUPIXENT plus TCS in subjects aged 6 to 11 years through week 16 was similar to that seen from trials in adults and adolescents with AD, and the safety profile through week 52 was similar to that observed through week 16.^[Dupixent_PI,2020;p9,para1 (entire),p9,para2,ln4-5]
- In subjects with AD, conjunctivitis was reported at a higher incidence in the DUPIXENT monotherapy or DUPIXENT plus TCS groups compared with the placebo or placebo plus TCS groups.^[Dupixent_PI,2020;p8,Table2,row3, Dupixent HCP website (https://www.dupixenthcp.com/atopicdermatitis/efficacy-safety/adolescent-safety-clinical-trial)] Most adults experiencing conjunctivitis recovered or were recovering during the treatment period.^[Dupixent HCP website (https://www.dupixenthcp.com/atopicdermatitis/efficacy-safety/safety-clinical-trial)]
- In meta-analyses of data across clinical trials of adults with AD, no increase in the overall infection rates was observed, and the rates of serious or severe infections and nonherpetic skin infections were lower with DUPIXENT versus placebo.^[Eichenfield et al, Am J Clin Dermatol,2019,p2,key points,bullet1-2,p3,col1,para4,ln1-5]
- In subjects with CRSwNP, the frequency of conjunctivitis was 2% in the DUPIXENT group compared with 1% in the placebo group in the 24-week safety pool.^[Dupixent PI,2020,p10,Table4,row2] In Trial 2 (52 weeks), the frequency of conjunctivitis was 3% in the DUPIXENT group compared with 1% in the placebo group; all of these subjects recovered.^[Dupixent HCP website (https://www.dupixenthcp.com/crswnp/safety-data)]

Treatment discontinuation

- In DUPIXENT AD trials, the proportions of subjects who discontinued treatment because of adverse events were similar to or lower in the DUPIXENT groups compared with the placebo groups.
- The table below provides an overview of the rates of treatment discontinuation across dupilumab AD trials.^[Dupixent_PI,2020;p7,section 6.1,para5,p8,para1, Dupixent HCP website (https://www.dupixenthcp.com/atopicdermatitis/efficacy-safety/adolescent-safety-clinical-trial)]

| Trial(s) | Adult monotherapy (Trials 1,2, and dose-ranging Trial 4), week 16 | Adolescent monotherapy (Trial 6), ^a week 16 | Adults with TCS (Trial 3), week 52 |
|----------------------------|---|--|------------------------------------|
| DUPIXENT 300 mg Q2W | 1.9% | 0% | 1.8% |
| Placebo | 1.9% | 1.2% | 7.6% |

^aDUPIXENT 200 mg or 300 mg Q2W.

- In AS Trials 1 and 2, the proportion of subjects who discontinued treatment due to adverse events was 4% of the placebo group, 3% of the DUPIXENT 200 mg Q2W group, and 6% of the DUPIXENT 300 mg Q2W group. [Dupixent_PI,2020;p9,para4]
- In CSNP Trials 1 and 2 safety pool (consisting of data from the first 24 weeks of treatment from both Trials), the proportion of subjects who discontinued treatment due to adverse events was 5% of the placebo group and 2% of the DUPIXENT 300 mg Q2W group. [Dupixent_PI,2020;p10,para4]

In summary:

AD: DUPIXENT was superior to placebo for the following primary and key secondary efficacy endpoints: change from baseline to week 16 in the proportion of subjects with IGA (0,1), the proportion of subjects with EASI-75, and a reduction from baseline in itch, as defined by the proportion of subjects with an improvement in Peak Pruritus NRS score of at least 4 points.

Asthma: DUPIXENT was superior to standard of care (medium- to high-potency inhaled corticosteroids plus a required second controller) for both coprimary endpoints: reduction in severe exacerbations at 52 weeks (AS Trial 2), and improvement in FEV₁ at 12 weeks (AS Trial 1 and 2), with additional improvements in the secondary endpoint of ACQ-5 response (AS Trial 2). There was no benefit in patients with baseline blood eosinophils <150 cells/μL compared with placebo. In addition, DUPIXENT significantly reduced OCS use while simultaneously reducing severe AS exacerbations and improving FEV₁ in patients with OCS-dependent severe AS (AS Trial 3).

CRSwNP: DUPIXENT significantly improved both objective and subjective disease measures, including bilateral endoscopic NPS and NC score. At 24 weeks, patients treated with DUPIXENT achieved statistically significant improvements in all primary endpoints. In a prespecified pooled analysis of the two trials up to 52 weeks, DUPIXENT treatment resulted in a significant reduction of SCS use and the need for sino-nasal surgery compared with placebo. The AS cohort

achieved statistically significant improvements in FEV₁ and ACQ-6, similar to patients in the AS program.

The most common adverse drug reactions included injection site reactions compared with placebo for all indications, conjunctivitis for AD, and eosinophilia for AS and CRSwNP. The incidences of treatment discontinuation due to adverse event were as low as or lower with DUPIXENT compared with those for placebo across indications.

Thank you for your consideration. I am happy to answer any questions you may have about DUPIXENT.

IMPORTANT SAFETY INFORMATION & INDICATIONS^[Dupixent_PI,2020]

CONTRAINDICATION: DUPIXENT is contraindicated in patients with known hypersensitivity to dupilumab or any of its excipients.

WARNINGS AND PRECAUTIONS

Hypersensitivity: Hypersensitivity reactions, including generalized urticaria, rash, erythema nodosum, anaphylaxis and serum sickness or serum sickness-like reactions, were reported in <1% of subjects who received DUPIXENT in clinical trials. If a clinically significant hypersensitivity reaction occurs, institute appropriate therapy and discontinue DUPIXENT.

Conjunctivitis and Keratitis: Conjunctivitis and keratitis occurred more frequently in atopic dermatitis subjects who received DUPIXENT with conjunctivitis being the most frequently reported eye disorder in these patients. Conjunctivitis also occurred more frequently in chronic rhinosinusitis with nasal polyposis subjects who received DUPIXENT. Advise patients to report new onset or worsening eye symptoms to their healthcare provider.

Eosinophilic Conditions: Patients being treated for asthma may present with serious systemic eosinophilia sometimes presenting with clinical features of eosinophilic pneumonia or vasculitis consistent with eosinophilic granulomatosis with polyangiitis (EGPA), conditions which are often treated with systemic corticosteroid therapy. These events may be associated with the reduction of oral corticosteroid therapy. Physicians should be alert to vasculitic rash, worsening pulmonary symptoms, cardiac complications, and/or neuropathy presenting in their patients with eosinophilia. Cases of eosinophilic pneumonia were reported in adult patients who participated in the asthma development program and cases of vasculitis consistent with EGPA have been reported with DUPIXENT in adult patients who participated in the asthma development program as well as in adult patients with co-morbid asthma in the CRSwNP

development program. A causal association between DUPIXENT and these conditions has not been established.

Acute Asthma Symptoms or Deteriorating Disease: Do not use DUPIXENT to treat acute asthma symptoms, acute exacerbations, acute bronchospasm or status asthmaticus. Patients should seek medical advice if their asthma remains uncontrolled or worsens after initiation of DUPIXENT.

Reduction of Corticosteroid Dosage: Do not discontinue systemic, topical, or inhaled corticosteroids abruptly upon initiation with DUPIXENT. Reductions in corticosteroid dose, if appropriate, should be gradual and performed under the direct supervision of a physician. Reduction in corticosteroid dose may be associated with systemic withdrawal symptoms and/or unmask conditions previously suppressed by systemic corticosteroid therapy.

Patients with Co-Morbid Asthma: Advise patients with atopic dermatitis or CRSwNP who have co-morbid asthma not to adjust or stop their asthma treatments without consultation with their physician.

Parasitic (Helminth) Infections: It is unknown if DUPIXENT will influence the immune response against helminth infections. Treat patients with pre-existing helminth infections before initiating therapy with DUPIXENT. If patients become infected while receiving treatment with DUPIXENT and do not respond to anti-helminth treatment, discontinue treatment with DUPIXENT until the infection resolves.

ADVERSE REACTIONS:

- **Atopic dermatitis:** The most common adverse reactions (incidence $\geq 1\%$ at Week 16) in adult patients are injection site reactions, conjunctivitis, blepharitis, oral herpes, keratitis, eye pruritus, other herpes simplex virus infection, and dry eye. The safety profile in children and adolescents through Week 16 was similar to that of adults with atopic dermatitis. In an open-label extension study, the long-term safety profile of DUPIXENT in adolescents and children observed through Week 52 was consistent with that seen in adults with atopic dermatitis.
- **Asthma:** The most common adverse reactions (incidence $\geq 1\%$) are injection site reactions, oropharyngeal pain, and eosinophilia.
- **Chronic rhinosinusitis with nasal polyposis:** The most common adverse reactions (incidence $\geq 1\%$) are injection site reactions, eosinophilia, insomnia, toothache, gastritis, arthralgia, and conjunctivitis.

DRUG INTERACTIONS: Avoid use of live vaccines in patients treated with DUPIXENT.

USE IN SPECIFIC POPULATIONS

- **Pregnancy:** Available data from case reports and case series with DUPIXENT use in pregnant women have not identified a drug-associated risk of major birth defects, miscarriage or adverse maternal or fetal outcomes. Human IgG antibodies are known to cross the placental barrier; therefore, DUPIXENT may be transmitted from the mother to the developing fetus.
- **Lactation:** There are no data on the presence of DUPIXENT in human milk, the effects on the breastfed infant, or the effects on milk production. Maternal IgG is known to be present in human milk. The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for DUPIXENT and any potential adverse effects on the breastfed child from DUPIXENT or from the underlying maternal condition.

Please see accompanying full [Prescribing Information](#)

INDICATIONS

Atopic Dermatitis: DUPIXENT is indicated for the treatment of patients aged 6 years and older with moderate-to-severe atopic dermatitis whose disease is not adequately controlled with topical prescription therapies or when those therapies are not advisable. DUPIXENT can be used with or without topical corticosteroids.

Asthma: DUPIXENT is indicated as an add-on maintenance treatment in patients with moderate-to-severe asthma aged 12 years and older with an eosinophilic phenotype or with oral corticosteroid dependent asthma. Limitation of Use: DUPIXENT is not indicated for the relief of acute bronchospasm or status asthmaticus.

Chronic rhinosinusitis with nasal polyposis (CRSwNP): DUPIXENT is indicated as an add-on maintenance treatment in adult patients with inadequately controlled CRSwNP.

Please see full Prescribing Information at www.dupixent.com or see representative.

References:

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9. Eichenfield LF, Bieber T, Beck LA, et al. Infections in dupilumab clinical trials in atopic dermatitis: a comprehensive pooled analysis. *Am J Clin Dermatol.* 2019;20(3):443-456.