

Patient Population Analytics: Asthma, FeNO ≥ 20 ppb in the UAE



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Clinerion offers indication-agnostic access to live, real-world EHR data of its partner hospitals.

In this example, the Clinerion Patient Network Explorer network was used to develop an analysis on Comorbidities, Treatments, and Lab-Tests including patients, using anonymized aggregate data, with the following characteristics:

- Diagnosed with Asthma (ICD-10: J45)
- Excluding obstructive pulmonary diseases
- FeNO Breath Test ≥ 20 ppb (parts per billion)

Data Source

United Arab Emirates

Query Date: 29-Jul-2020

Query Type: - ICD10: J45
- FeNO ≥ 20 ppb

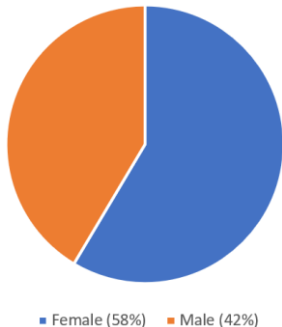
Sample Size: 374 Patients matching Query

Number of Clinics: 1
Clinic Types: Private multi-specialty hospital
Total Asthma Patients: 9'160

Gender Distribution

Female 219
Male 155

Total 374

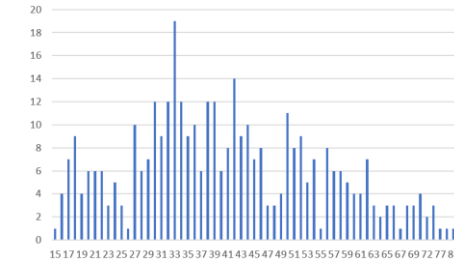


Age Distribution

At baseline event:

Patients 01 – 18 years 21
Patients 19 – 25 years 33
Patients 26 – 40 years 143
Patients 41 – 64 years 161
Patients >65 years 25

Median Age: 45
Standard Deviation 14.42



Lab Tests

FeNO Breath Test Breath	374	100%
Platelets	319	85%
Hematocrit	319	85%
Hemoglobin	319	85%
Mean cell hemoglobin concentration (MCHC)	319	85%
Mean cell volume (MCV)	319	85%
Mean cell hemoglobin (MCH)	319	85%
ABSOLUTE BASOPHIL	319	85%
ABSOLUTE LYMPHOCYTE	319	85%
ABSOLUTE EOSINOPHIL	319	85%
Red cell distribution width (RDW)	319	85%
Red blood cells (RBC)	319	85%
White blood cells (WBC)	319	85%
Mean platelet volume (MPV)	319	85%
Differential type Whole blood	319	85%
Estimated glomerular filtration rate (eGFR)	290	78%
Creatinine Plasma	288	77%
Glucose, random Plasma	287	77%
Sodium Plasma	287	77%
Potassium Plasma	287	77%
CO2 Plasma	287	77%
Anion gap Plasma	287	77%
Urea Plasma	287	77%
Chloride Plasma	287	77%
Nucleated red cells (NRBC)	286	76%
Albumin Plasma	278	74%
Calcium Plasma	271	72%
Alanine aminotransferase (ALT) Plasma	240	64%
Aspartate aminotransferase (AST)	236	63%
Alkaline phosphatase Plasma	236	63%
Bilirubin, total Plasma	235	63%
Protein, total Plasma	234	63%
Immunoglobulin E, Total	221	59%
Thyroid stimulating hormone (TSH) Plasma	185	49%
Cat dander antibodies, IgE	159	43%

Comorbidities

Allergic rhinitis due to animal (cat) (dog) hair	296	78%
Moderate persistent asthma, uncomplicated	240	64%
Gastro-esophageal reflux disease without esophagitis	184	49%
Allergic rhinitis, unspecified	176	47%
Chronic sinusitis, unspecified	172	46%
Other allergic rhinitis	172	46%
Encounter for immunization	160	43%
Cough	157	42%
Mild intermittent asthma, uncomplicated	150	40%
Shortness of breath	149	40%
Vitamin D deficiency, unspecified	143	38%
Mild persistent asthma, uncomplicated	129	34%
Nasal congestion	115	31%
Unspecified asthma, uncomplicated	113	30%
Moderate persistent asthma with (acute) exacerbation	101	27%
Severe persistent asthma, uncomplicated	100	27%
Dry eye syndrome of bilateral lacrimal glands	98	26%
Allergy, unspecified, sequela	98	26%
Xerosis cutis	97	26%
Epigastric pain	91	24%
Constipation, unspecified	90	24%
Sicca syndrome, unspecified	88	24%
Atopic dermatitis, unspecified	86	23%
Encounter for other specified aftercare	81	22%
Deviated nasal septum	80	21%
Acute atopic conjunctivitis, bilateral	80	21%
Obesity, unspecified	78	21%
Dermatitis, unspecified	78	21%
Unspecified abdominal pain	77	21%
Acute upper respiratory infection, unspecified	77	21%
Dietary counseling and surveillance	73	20%
Hypertrophy of nasal turbinates	72	19%
Essential (primary) hypertension	72	19%
Nasal polyp, unspecified	69	18%
Pruritus, unspecified	68	18%
Abdominal distension (gaseous)	63	17%
Nausea	61	16%
Unspecified asthma with (acute) exacerbation	60	16%
Encntr for fu exam aft trmnt for cond oth than malign neopl	58	16%
Chronic rhinitis	58	16%
Functional dyspepsia	58	16%
Pulmonary eosinophilia, not elsewhere classified	57	15%
Mild persistent asthma with (acute) exacerbation	57	15%
Acute pharyngitis, unspecified	57	15%
Palpitations	56	15%
Severe persistent asthma with (acute) exacerbation	56	15%
Myalgia	56	15%
Other fatigue	56	15%
Chest pain, unspecified	55	15%
Other muscle spasm	53	14%
Dizziness and giddiness	51	14%
Other acute postprocedural pain	51	14%
Anemia, unspecified	50	13%
Low back pain	50	13%
Cervicalgia	50	13%
Other chest pain	50	13%
Chronic pansinusitis	49	13%
Obstructive sleep apnea (adult) (pediatric)	48	13%
Iron deficiency anemia, unspecified	48	13%
Acute bronchitis, unspecified	46	12%
Pain, unspecified	45	12%
Urticaria, unspecified	45	12%
Other constipation	45	12%
Diarrhea, unspecified	42	11%
Deficiency of other specified B group vitamins	41	11%
Encounter for screening for malignant neoplasm of colon	40	11%
Allergy to other foods	40	11%

Administered Therapeutics

sodium chlorite	311	85%
protiofate	281	75%
salbutamol	277	74%
lexofenadine	261	70%
metomasone	260	70%
prednisolone	254	68%
budesonide	227	61%
montelukast	182	49%
paracetamol	181	48%
Influenza vaccines	172	46%
esomeprazole	155	41%
azithromycin	150	40%
epinephrine	138	37%
ipratropium bromide	130	35%
propofol	130	35%
lidoflazine	122	33%
cetirizine	114	30%
ondansetron	114	30%
loratadine	114	30%
Softeners, emollients	108	29%
fentanyl	107	29%
diphenhydramine	96	26%
ammonium chloride	89	24%
salmeterol	87	23%
olopatadine	85	23%
pantoprazole	81	22%
trometamol	81	22%
fluticasone	81	22%
tiotropium bromide	78	21%
ibuprofen	78	21%
ergocalciferol	76	20%
sodium phosphate	74	20%
naproxen	73	20%
ranitidine	70	19%
hyaluronidase	67	18%
omalizumab	66	18%
diclofenac	65	17%
chlorthenoxamine	61	16%
metoclopramide	59	16%
tramadol	58	16%
rocuronium bromide	56	15%
dupilumab	55	15%
methylprednisolone	53	14%
celecoxib	53	14%
enoxaparin	49	13%
glycopyrronium bromide	46	12%
midazolam	46	12%
remifentanyl	45	12%
moxifloxacin	43	11%
fluticasone furoate	43	11%
glycerol	43	11%
ambroxol	43	11%
dexpantanol	42	11%
tizanidine	41	11%
Sodium	40	11%
morphine	40	11%
ketoconazole	39	10%
docusate sodium	38	10%
hydrocortisone	38	10%
clarithromycin	38	10%
gabapentin	38	10%
citric acid	36	10%
phenylephrine	36	10%
diphtheria toxoid	36	10%