

Background

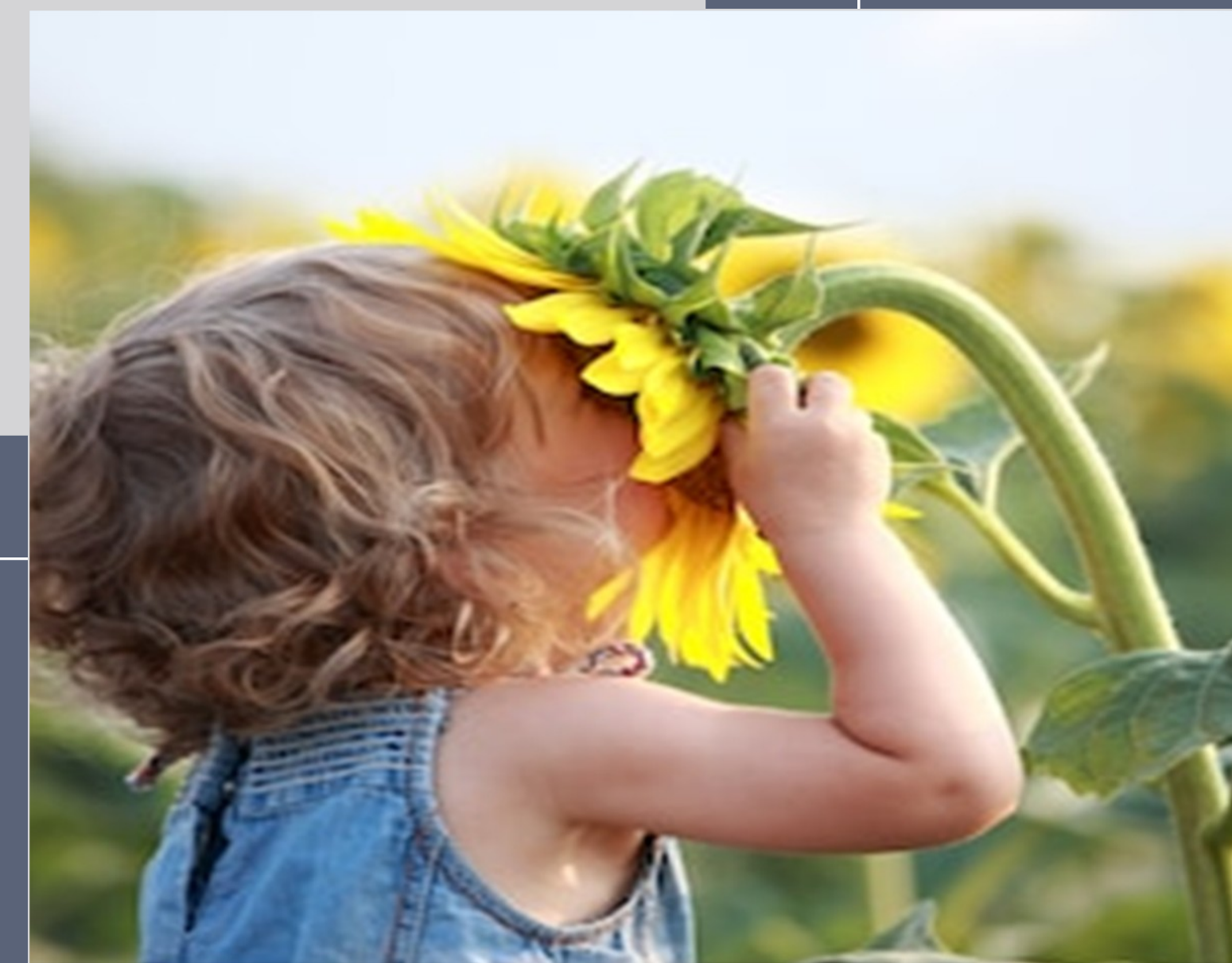
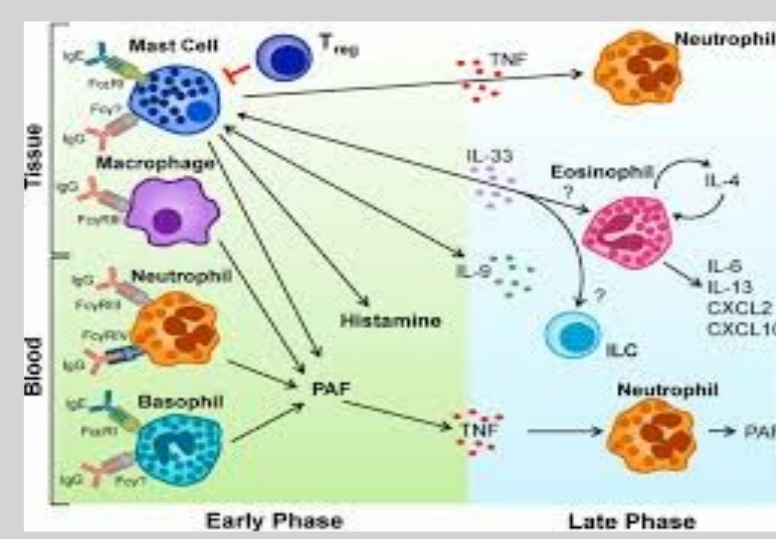
- * Allergic rhinitis (AR) is poorly understood and under-diagnosed by clinicians worldwide despite its rising prevalence (1,2)
- * **AR incidence 40%** in paediatric population (3,4)
- * AR children have a **2.1 higher** incidence rate of obstructive sleep apnoea (OSA) (5)
- * House dust mite AR was correlated with an increased risk of asthma (6)
- * An understanding of AR in the paediatric population is needed

Objectives

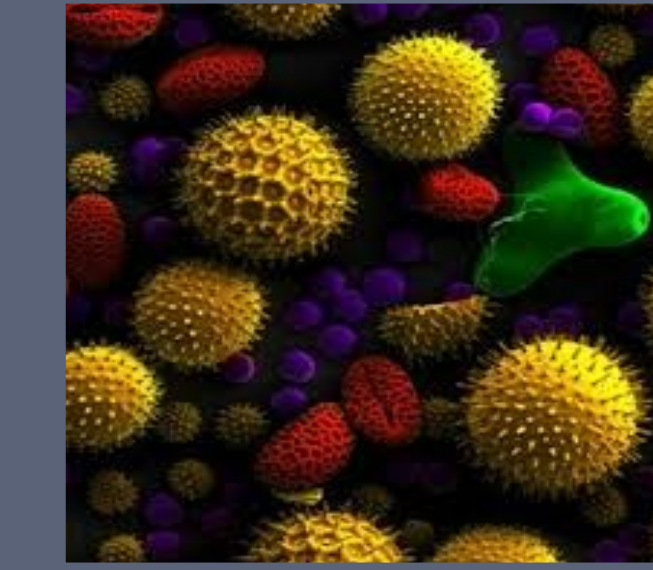
- * To study the main allergens and demographic data in an Irish paediatric population from a large urban area

Methods

- * Retrospective review of clinical letters
- * **5 consecutive years**
- * search term “allergic rhinitis”
- * tertiary paediatric ORL department
- * **Excluded:** a known diagnosis of AR but with well-controlled symptoms
- * Data analysed: demographics, identified allergens, correlation between the birth month and intermittent allergic status



ARWIA



- * Males 2.3 x females
- * Median age: 9 years
- * Most common age group: 5-9 years
- * 51% year 2016
- * 45% year 2019
- * 30% epistaxis patients had ARWIA

Allergen tested	Pre-ORL assessment (%)	Post-ORL assessment (%)
Dust mite	45.2	44.7
Grass pollen	27.3	29
Dog	12.6	16.3
Cat	10.5	8.8
Aspergillus/moulds	4.2	1
Food	27.3	11.3
Dust & grass	36.3	48
Grass & dog	11	25

Table 2. Atopic history in percentages of ARWIA patient

History of atopy	Percentage of patients (%)
Asthma	31
Atopy	26.7
Eczema	32
Allergic conjunctivitis	28.8
Food allergy	15



Table 3. Positive allergens in our population

Results

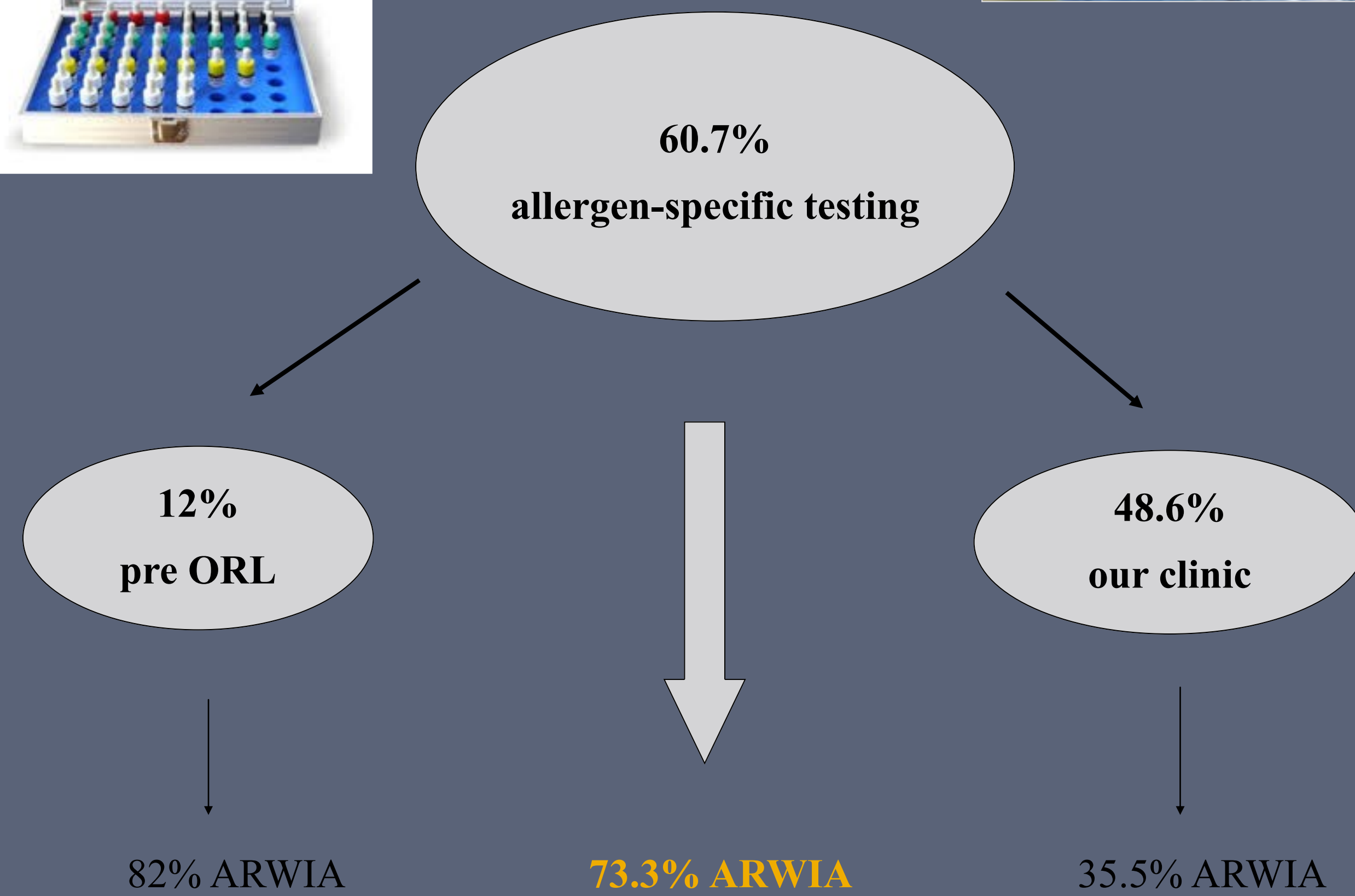
- * **555 patients in 5 years**
- * **2/3 males**, 1/3 females
- * Age: 1-19 years, median 9 years of age
- * Age 5-9 the most tested (48.5%)



History of atopy	Percentage of patients (%)
Asthma	26
Atopy	19
Allergic conjunctivitis	32
Eczema	28.5
Food allergy	9.5

Table 1. Percentages of patients with atopic histories

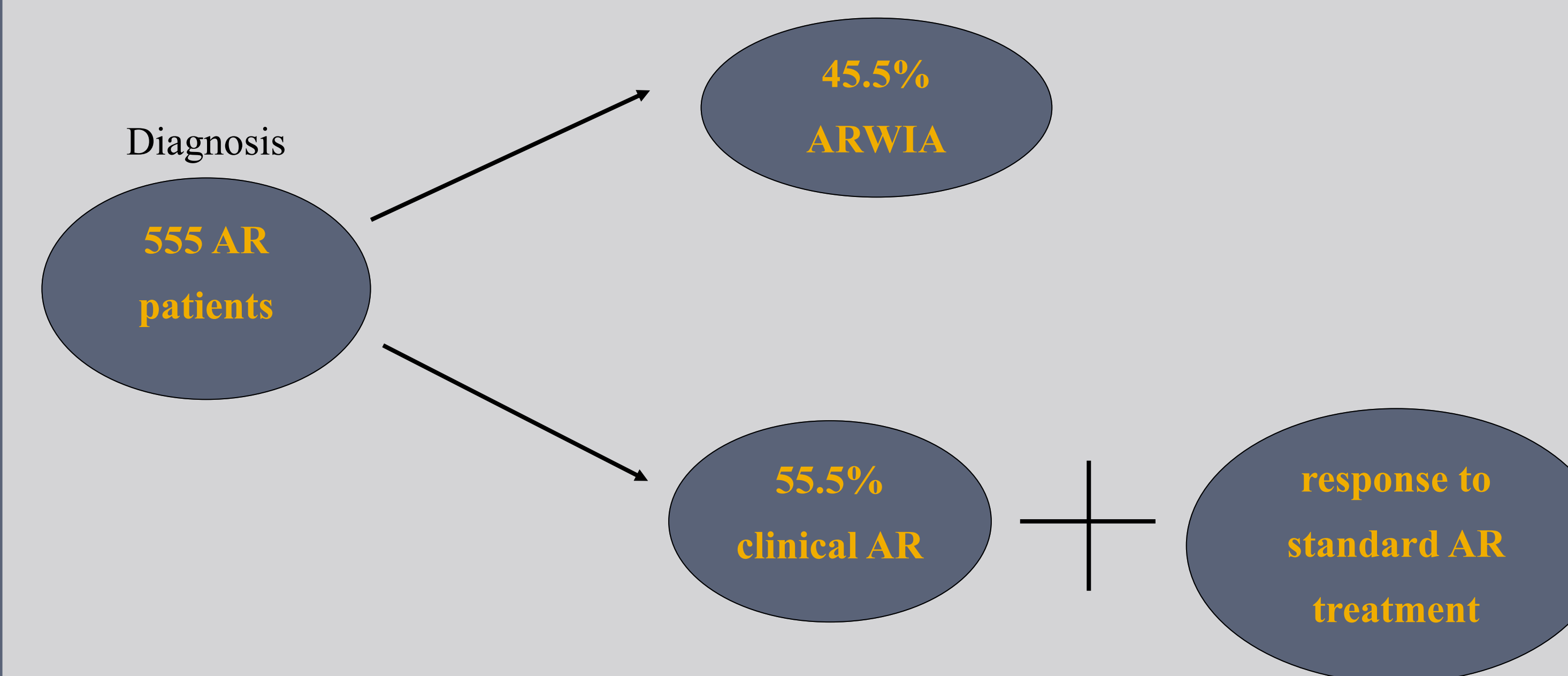
ARWIA = AR with an identified allergen



Conclusions

Summary

- * First study in Ireland to objectively investigate AR in a paediatric population (via allergen testing)



- * A change in winter/spring months pattern of 2015 to spring/summer of 2019 was observed

- * **73%** of tested patients were **positive** to at least **one aeroallergen**.
- * **House dust mites and grass pollen** are the primary allergens in the East of Ireland.
- * **48%** of our patients testing **positive** for **both allergens**.
- * No correlation of birth month and grass allergy was noted.
- * **Re-testing** patients with a known allergy test result should be **discouraged**.