

BACKGROUND

INTRODUCTION

Allergic contact dermatitis causes itchy, painful rashes that can significantly impact a patient's quality of life and ability to work

Patients who present with the typical skin findings are referred to a subspecialty clinic at Kaye Clinic, where they undergo 'allergy patch testing' to identify the allergen(s) that they need to avoid in order to cure their rash.

Patch test patients are typically required to visit the Kaye Clinic **three** times in one week:

- 1) Monday- patch application
- 2) Wednesday- patch removal/first reading
- 3) Friday- final reading, conclusions, and patient education

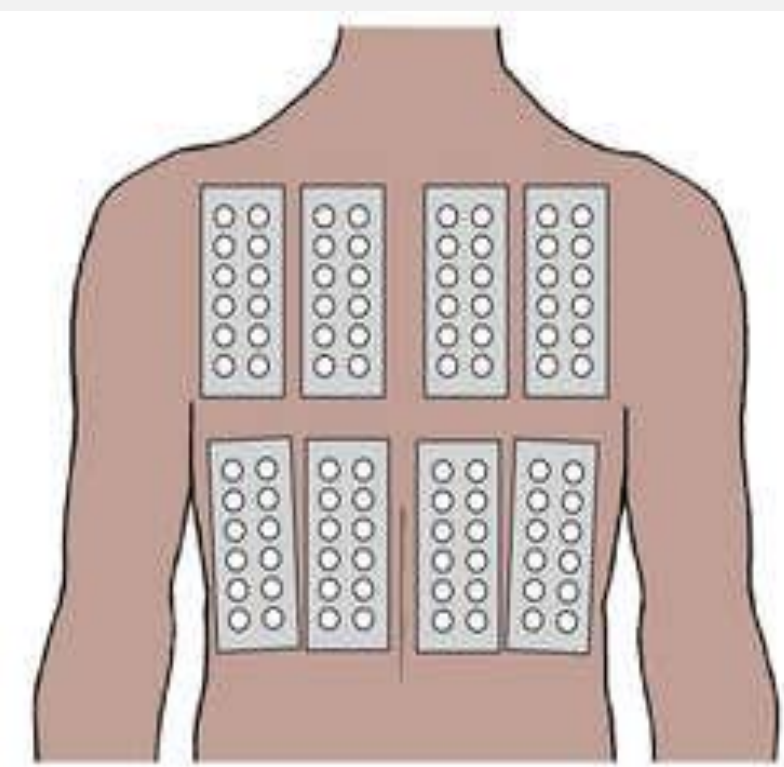
The COVID-19 pandemic disrupted this model. In patient-administered patch testing, we mail patients a package containing the set of allergy

patches. The package includes a form to document and share the evolving skin reactions, along with photographs, with the physician.

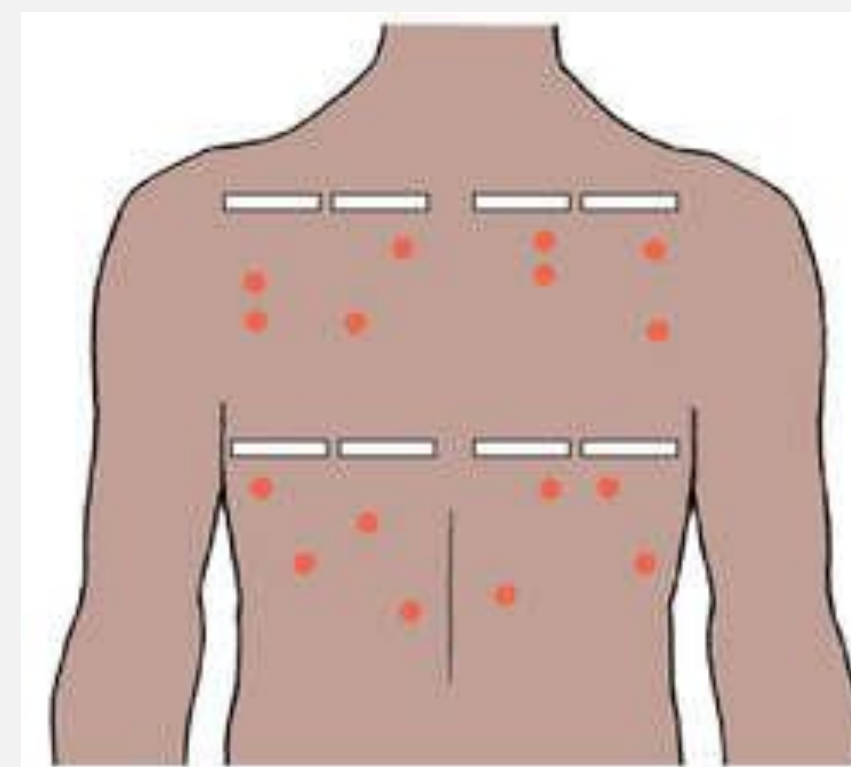
We email video instructions to guide patch application/removal. Patients only visit Kaye Clinic **once** during the week, for a final read/education.



Patch tests are prepared



Patches are affixed to upper back



Hypersensitivity is determined

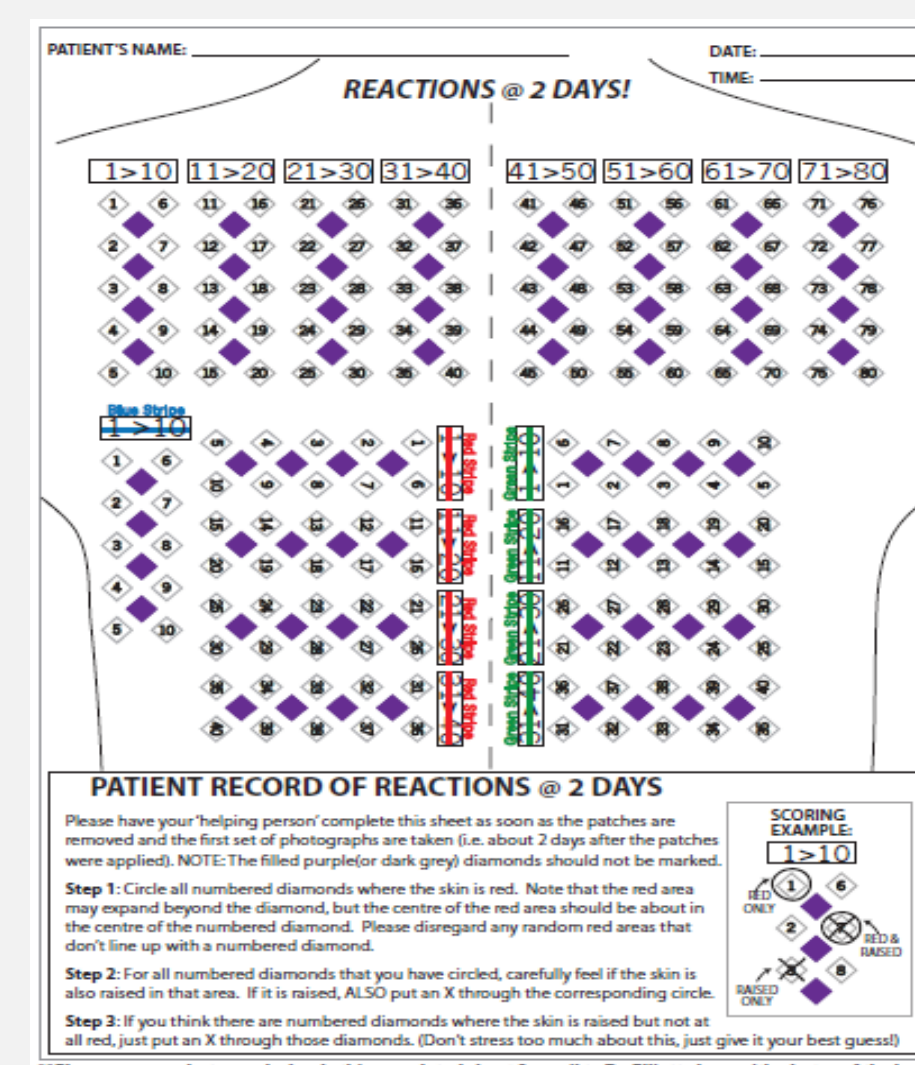
AIMS

1. Determine if patient-administered patch testing is comparable to physician-administered patch testing
2. Decrease the number of in-person clinic visits to from three to one
3. Identify improvements that will facilitate home-administered patch testing



METHODS

- This pilot study uses weekly test of change cycles to assess patient-administered patch testing
- Each patient designates their own helping person to apply the allergy patches onto their back. After 48 hours of exposure to the skin, the patches are removed, and the developing skin reaction is documented on the scoring form
- We collect patient feedback for iterative improvement for patch-testing



MEASURES/OUTCOMES

MEASURES

Balancing measures

- % of patients requiring a full repeat (3 meetings) of physician-administered patch testing
- Length of in-office visits

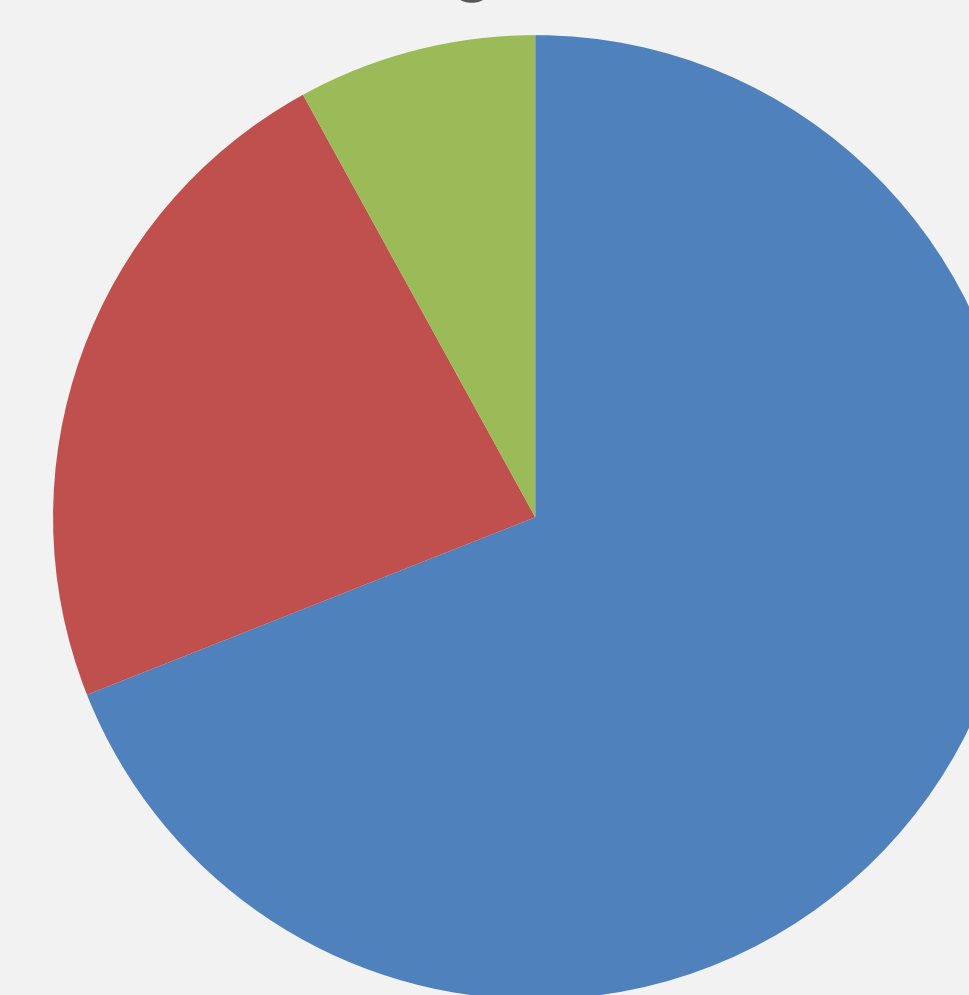
Process Measures

- Rate of patch test scoring form completion
- Rate of diagnostic concordance between physician and participant

Outcome Measures

- Participant satisfaction with at home patch-testing

Breakdown of patients by number of allergens N =13



■ 1-3 allergens ■ 4-6 allergens ■ >6 allergens

OUTCOMES

- 15 patients were included in this pilot study
- 14 patients completed patch testing successfully
- True contact dermatitis was identified in 13 out of these 14 patients
- On average, 75% of the allergens causing true contact dermatitis were identified by both the physician and the patient ahead of the final clinic appointment
- Final appointment length did not increase from 30 minutes
- Patients view patch testing as highly convenient and were satisfied with the degree of collaboration with the physician in diagnosing their skin problem

CONCLUSIONS

A subset of allergy patch testing patients are willing and able to apply allergen patches at home, when given detailed instructions and while under physician supervision.

Patients were able to reduce workplace absences, save on parking expenses and travel time, and potentially decrease their exposure to COVID-19.

Preliminary data shows that patients tend to over-identify allergens on the skin scoring form but found the data-sharing with their physician to be a pleasant experience.

Further analysis will reveal if physician-supervised, patient-administered patch testing can be reliably incorporated into practice.

CONTINUOUS IMPROVEMENT

In troubleshooting the challenging aspects of patch application, and skin scoring, we may decrease the number of appointments traditionally needed for each patch test patient.

If this is achieved, patch testing may become accessible for more people.

Currently, there is a 6 month-1 year wait list for allergy patch testing.

ACKNOWLEDGMENTS

Special thanks to Sunita Ghosh, Azita Milani and Danielle Aquino

References: <https://img.tfd.com/medical/Davis/Tabers/th/p08c.jpg>
<https://img.tfd.com/medical/Davis/Tabers/th/p08c.jpg>