

Use of Telemedicine in the Evaluation of Patients with Mast Cell Activation

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Rationale: Eighteen months ago, our office began evaluating patients for Mast Cell Activation Syndrome (MCAS). Patients present with multiple complaints and co-morbidities, often requiring lengthy record reviews. To manage this volume of requests, our team developed an approach that leverages telemedicine for new and established patients. We thus found ourselves capable of determining whether our approach improved care and maintained satisfaction.

Methods: We employ a three-pronged approach. First, we request records from providers, after which summaries are prepared and billed ahead of initial visits. We then schedule a telemedicine visit with patients to review records and determine subsequent treatment steps. The third step is a mandatory office visit that includes a detailed physical exam and review of ordered scans and laboratory results. Subsequent treatment interactions occur via telemedicine or in-office, as dictated by patient preference and office availability.

Results: Referring providers sent records prior to initial interaction, usually a telemedicine visit. Telemedicine evaluations were elected primarily due to distance from the office (> 2 hrs. travel in state or out-of-state). Patient satisfaction surveys were approximately 90% with this approach. Compliance with treatment was encouraging considering insurance coverage, concern for adverse drug effects or satisfaction with previous regimens. Reimbursements for pre-visit records review (99358, 99359), consultant level (99244, 99245), new level (99204, 99205) or established level (99214, 99215) with extended time (99354) were acceptable.

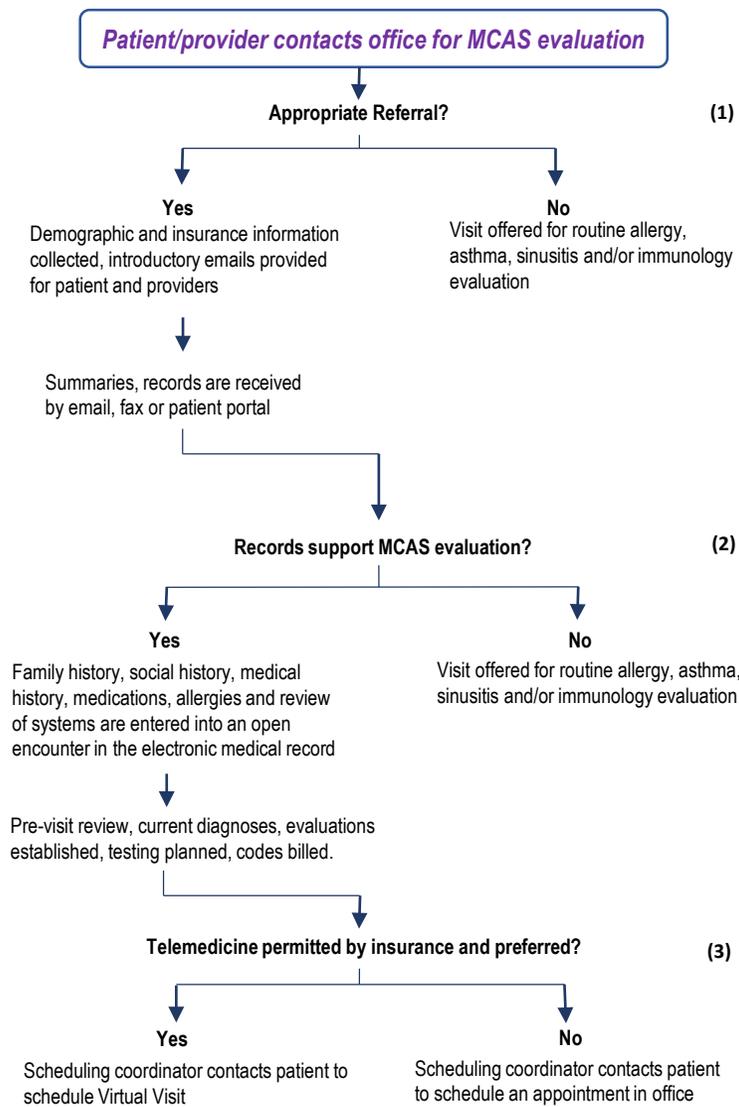
Conclusions: Telemedicine for MCAS evaluation proved useful for initial and follow-up visits with satisfactory patient acceptance and outcomes. Our three-pronged approach for patients with complex disorders enhanced their evaluation, treatment and continuing care.

Introduction

Mast Cell Activation Syndrome (MCAS) is a systemic condition whereby patients present with symptoms originating from at least 2 out of 4 organ systems (Cardiac, Gastrointestinal, Respiratory and Skin) in addition to laboratory evidence of mast cell mediator release (elevated serum tryptase, urinary PgF2alpha, LTE4, N-methylhistamine). Evaluation may be complex, involve KIT gene analysis and workup of possible secondary co-morbidities. It is therefore important to have an organized and efficient approach when patients first call and reach out for an office evaluation.

In the past year, our office in conjunction with the ACO Privia, has engaged in Telemedicine, (used interchangeably with Virtual Visits or Telehealth) to better accommodate patient's busy schedules, distance from the office, family obligations among others. As the number of established and new patients presenting with MCAS have increased, we asked whether Telehealth visits could be applied to MCAS patients with the similar satisfaction and efficiency. As will be shown, established and new patients under evaluation for MCAS were generally pleased. Furthermore, we are able to bill and be compensated for pre-visit record reviews in addition to Virtual Visits.

Evaluation Algorithm



Informational Approach & Encounters

Patient Encounters

2018-2020

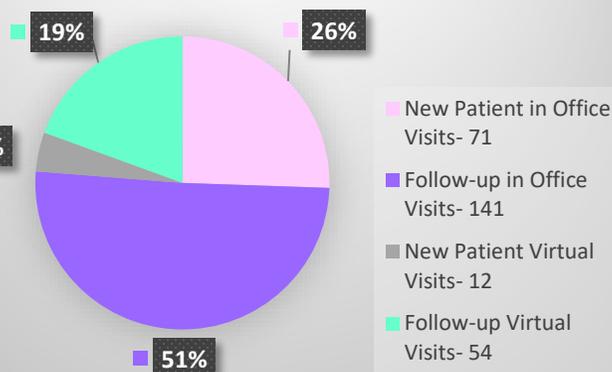


Table 1. Historical Criteria for MCAS Diagnosis – At Least 2/4 Organ Systems

- Cardiovascular-** hypotension, tachycardia, and syncope or near-syncope
- Dermatologic-** urticaria, pruritis and flushing and angioedema, particularly of the eyelids, lips and tongue
- Respiratory-** wheezing, shortness of breath and inspiratory stridor
- Gastrointestinal-** crampy abdominal pain, diarrhea, nausea and vomiting

Table 2. Common Comorbidities Associated with MCAS *

Allergies	Intolerances
EDS (Hypermobile)	POTS/Dysautonomia
Fibromyalgia	Urticaria/Angioedema
Infections	GERD

*List not meant to be exhaustive

Table 3. Representative CPT Reimbursement Commonly Used for Telehealth Visits

CPT Codes *	Description	Payment Efficiency (%) **
99244	Level 4, Consult	61.07 %
99245	Level 5, Consult	48.29 %
99204	Level 4, New Patient	51.21 %
99205	Level 5, New Patient	60.00 %
99214	Level 4, Est. Patient	55.38 %
99215	Level 5, Est. Patient	60.00 %
99354	Direct, Prolonged Service	65.21 %
99358 ***	Non-Direct, Record Review	49.43 %
99359 ***	Non-Direct, Record Review	58.88 %

* Modifier 95 used for Telemedicine; Modifier 25 for "in office" visits
 ** Calculated as percentage of payment collected per charge (allowable/charge)
 *** Not rendered via telehealth, included for reimbursement illustration only

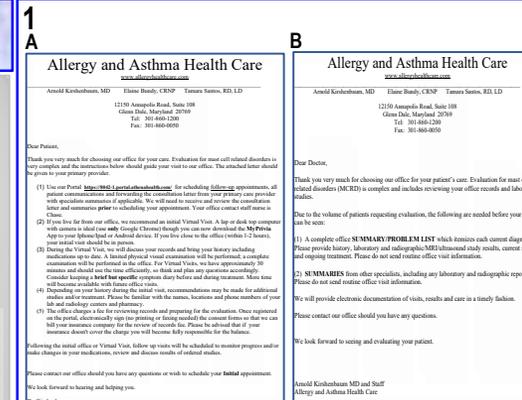


Figure 1. Introductory Letters: A. Patient and B. Provider

Conclusions

1. Telemedicine for MCAS evaluation proved useful and effective for initial and follow-up visits of patients with suspected mast cell disorders.
2. Our three-pronged approach for patients with complex disorders enhanced their evaluation, treatment and continuing care.

Our hope for the future

1. Telemedicine becomes available for patients across state lines without complications.
2. Medicare will provide coverage for Telemedicine.

References

1. Weiler CR, Austen KF, Akin C, Bernstein JA, Bonnadonna P, Butterfield JH, et al. AAAAA mast cell disorders committee work group report: mast cell activation syndrome (MCAS) diagnosis and management. J Allergy Clin Immunol 2019; 144:883-896
2. Wu AC, Rheman N, Portnoy J. The Good, the bad, and the Unknown of Telemedicine in Asthma and Allergy Practice. J Allergy Clin Immunol 2019; 7:2580-2582
3. Greiwe J. Using Telemedicine in a Private Allergy Practice. J Allergy Clin Immunol 2019;7:2560-2567

Additional Resources

https://www.youtube.com/watch?v=art2lxUD_c
<https://www.youtube.com/watch?v=H2LZpcAfmI&t=78s>
www.allergyhealthcare.com
www.privamedicalgroup.com
<https://tmsforacure.org/>