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Knowledge of Vaccination History Does Not Predict Immune Status in Inflammatory Bowel Disease Patients

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Introduction: Current quality measures and management guideline in IBD emphasize vaccinations for vaccine-preventable illnesses, but do not specify assessment of current immune status. Given the recent resurgence of measles virus infections and separately, a Bordetella pertussis outbreak, we previously assessed the immune status of our IBD population (ACG 2015). We found that 13% of patients lacked detectable immunity to measles and 60% were non-immune to pertussis. In this follow up study, we obtained vaccination history from our patients and correlated it to their immune status.
Methods: Patients involved in our previous immune status study were contacted in order to obtain their vaccination history. A simple five-question survey was administered via telephone. Knowledge of childhood vaccination and subsequent boosters was collected and compared to previously gathered immune status against measles and pertussis. Immunity was previously defined as: measles antibodies ≤0.8 Antibody index (AI)=negative immunity, 0.8-1.1 AI=equivocal immunity and titers ≥1.2 AI=positive immunity. For pertussis immunity, anti-pertussis (PT) antibodies ≤ 5 IU/mL were considered negative immunity. Simple statistical comparison was performed.
Results: We were able to contact 88 of the original 122 patients. 62(70%) and 60 (68%) patients reported childhood vaccinations to measles and pertussis, respectively. 20 (23%) in both groups did not know their childhood vaccination history. 53 (85%) of those who recalled receiving the childhood vaccination for measles were also found to be immune; 18 (30%) of those who recalled receiving pertussis vaccinations were immune. All 6 patients who reported not receiving childhood measles vaccination had positive titers (without reporting a history of being infected with measles); 5 of 8 patients (62%) who reported not receiving the pertussis vaccination were immune. Analysis of booster vaccination recall did not change these results. See Tables 1 and 2.
Conclusion: In this study, we found that IBD patient recall of vaccination history does not predict immune status. Given these findings, in combination with the known waning of immunity as patients age, we recommend obtaining titers in order to confirm immune status, and then vaccinating accordingly. Providing patients with documentation of their vaccination history and immune status would further improve this process.

[644] Table 1. IBD Patient Recall of Measles Vaccination Compared to their Actual Immune Status to Measles.

Patient Recall of Childhood Vaccination		Immunity to Measles	
		Y	N
Y	62	53	9
N	6	6	0
I don't know	20	17	3
TOTAL	88	76	12

[644] Table 2. IBD Patient Recall of Pertussis Vaccination Compared to their Actual Immune Status to Pertussis.

Patient Recall of Childhood Vaccination		Immunity to Pertusis		
		Y	N	Unknown
Y	60	18	24	18
N	8	5	3	0
I don't know	20	7	10	3
TOTAL	88	30	37	21

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Using Twitter to Study Injection Site Reactions in Inflammatory Bowel Disease Patients

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Introduction: Injection site reactions (ISRs) are a known adverse event (AE) of injectable therapies in patients with Crohn's disease (CD) and ulcerative colitis (UC), but real-time and long-term study of this AE remains difficult. The Twitter Streaming Application Programming Interface (API) has been previously used to monitor AEs in other diseases. The Twitter API (TAPI) gives access to ~1% of all tweets and provides for large-scale data collection. We used the TAPI to describe injection site reactions in IBD patients.
Methods: The Twitter Spritzer Streaming API and Search API were utilized together in order to collect tweets relevant to IBD and subcutaneous medications (adalimumab [ADA], golimumab, certolizumab pegol [CZP], and methotrexate [MTX]). User IDs were extracted to determine unique users. Retweets from all users and tweets from pharmaceutical companies were excluded. Disease information was extracted from tweets.

[645A] Figure 1.

Results: Over two months, 220 tweets were collected from 104 unique users. 138 tweets (63%) were sent to Twitter from pharmaceutical companies and excluded. 54/220 tweets from 38 unique users (37%) met inclusion criteria (a 25% yield). Of these users, 27 were CD patients, 5 were UC patients, and 6 did not specify their type of IBD. The majority of Twitter users reported the use of ADA (n=28), 2 reported using CZP, and 8 reported using MTX. All users reported medication use by brand name except when describing MTX. 20 tweets (37%) contained information about time points. This included referencing injection schedules (n= 15), medication shipment dates (n=1), and changes in therapy (n=4). Two ISRs were reported, both in the use of ADA. The first ISR occurred in an individual with UC during the initial loading dose and was characterized by pain in their thighs for the duration of the day. No photo was included. The second occurred in a user with unspecified IBD and described slight itching and a reaction duration of greater than two weeks. A photo was uploaded confirming the ISR (Figure).
Conclusion: Using Twitter to study injection site reactions identified a low number of reported AEs of interest, but provides a framework for directed inquiry for future use. The Streaming API can target these individuals and record important time points, changes in therapy, and use brand names as keyword filters.

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Narcotic Use, Psychiatric History, and Corticosteroid Use Are Associated with Depressive Symptoms in Patients with IBD

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Introduction: Patients (pts) with inflammatory bowel disease (IBD) including ulcerative colitis (UC) and Crohn's disease (CD) are known to have an increased risk of depression. Further data is necessary to determine if certain baseline factors are associated with increased depressive symptoms in pts with IBD.
Methods: A retrospective study involving pts with IBD seen at a single tertiary care IBD clinic from 2012 through 2013 at an initial new patient visit was conducted. Disease activity was measured using the Harvey Bradshaw Index (HBI) in pts with CD and the Simple Colitis Disease Activity Index (SCDAI) in pts with UC. Health related quality of life (HRQOL) was measured using the Short Inflammatory Bowel Disease Questionnaire (SIBDQ). Depressive symptoms were measured using Patient Health Question-