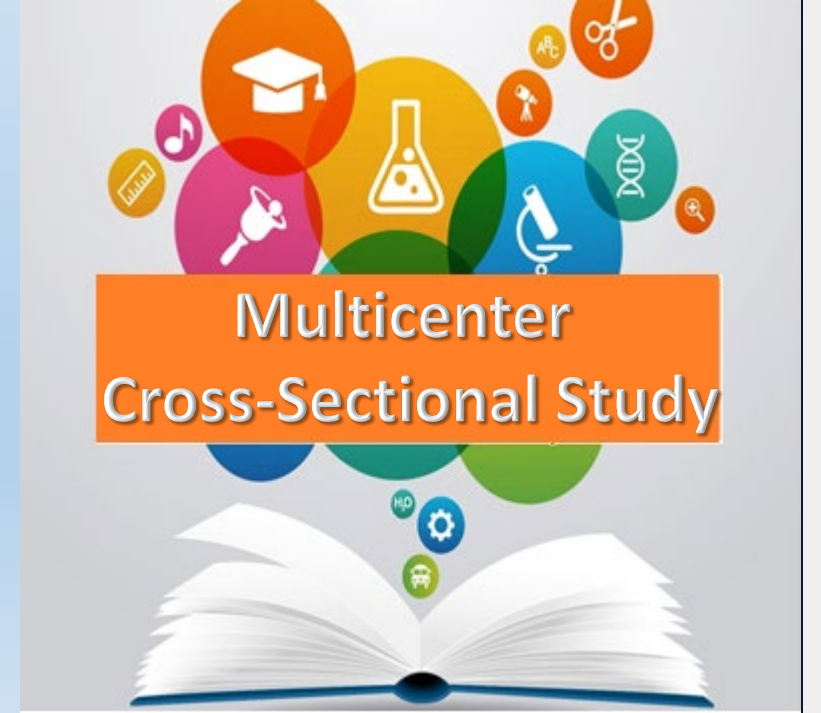


Toward Evidence Based Practice

Prevalence of Oppo Infections in Syrian IBD Patients

MD.Hussam Aldeen Alshiekh



- ٣٧٧ ♂ إسهالات مزمنة ٣ - ٤ | يوم ، آلام بطنية ماغصة ، منذ حوالي ٣ سنوات
- اشتدت هذه الهجمات وأصبحت الأعراض مستمرة خلال الـ ٦ أشهر الأخيرة
- فحص سريري ، إيكو بطن ، مخبريات ، تنظير هضمي سفلي مع خزعات ← داء كرون
- كورتيكوستيرويد + إيموران ← تحسن ، ولكن مع تخفيض الستيرويد عاودت الأعراض
- ← مشفى حكومي لتقييم الخطة العلاجية ← علاج بيولوجي ← استجابة جيدة مع هجوع سريري ومخبري
- بعد شهرين من بدء العلاج : إسهالات أشد من السابق ، مدماة ، ألم بطني ، حمى ، اضطراب علامات حيوية
- إعادة تقييم : سريري ، مخبري ، تنظيري ، وأخذ الخزعات المناسبة ← **Acute Severe CMV Colitis**



Check for updates

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RECEIVED 26 February 2023

ACCEPTED 12 May 2023

Seroprevalence and trends of hepatitis B virus, hepatitis C virus and human immunodeficiency virus in Syrian blood donors at Damascus University Blood Center between 2004 and 2021

Alia Alassad¹, Mhd Jawad Al Rahwanji^{2,3}, Amal Yousfan^{4,5},
Sally Al Moualem⁶, Arwa Farhat⁶ and Lama A. Youssef^{7*}



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RECEIVED 26 February 2023
ACCEPTED 12 May 2023

Results: Of the total 307,774 donors (82.27% males, median age 27 years), 5,929 (1.93%) had serological evidence of at least one TTVI, and 26 (0.0085%) had multiple infections. The lowest prevalence (1.09%) was detected in donors aged 18–25 years old, and a higher prevalence (2.05%) was evident in males in comparison with females (1.38%). The seroprevalence of HBV, HCV, and HIV was 1.18, 0.52, and 0.23%, respectively. Trend analyses revealed a significant regression in HBV and HIV prevalence from 2011 to 2021. HBV seropositivity depicted a temporal decline by ~80%, from 0.79% in 2011 to 0.16% in 2021 in those born in 1993 and thereafter.

Center between 2004 and 2021

Alia Alassad¹, Mhd Jawad Al Rahwanji^{2,3}, Amal Yousfan^{4,5},
Sally Al Moualem⁶, Arwa Farhat⁶ and Lama A. Youssef^{7*}

©
virus
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Review

Hepatitis B and C in the Syrian Arab Republic: a review

H. Bashour¹ and G. Muhjazi²

التهاب الكبد الفيروسي B وC في الجمهورية العربية السورية: مراجعة أدبية هيام بشور، غادة محجازي

الخلاصة: يراجع هذا البحث وبائيات التهاب الكبد الفيروسي B وC ومحددات الإصابة بهما في الجمهورية العربية السورية، فضلاً عن معالجتهما والوقاية منهما. فقد أجري بحث منهجي في مواقع Medline، PubMed وIndex Medicus الخاص بإقليم شرق المتوسط، بالإضافة إلى مراجعة الأدب الرمادي ومجموعات البيانات ذات الصلة في الجمهورية العربية السورية. ولوحظ أن كلا المرضين المعديين متوطنان على المستوى الوطني بمستويات منخفضة إلى أقل من متوسطة. غير أن وجود قوارق جغرافية لافتة وارتفاع الانتشار بين الفئات عالية الخطورة كان ملحوظاً. وبسبب محدودية البيانات لا بد من إجراء مزيد من البحوث، ومن وضع استراتيجية وطنية لمكافحة التهاب الكبد الفيروسي B وC في الجمهورية العربية السورية، خصوصاً أثناء النزاع الحالي.

ABSTRACT This paper reviews the epidemiology and determinants of hepatitis B and C in the Syrian Arab Republic as well as their treatment and prevention. A systematic search of Medline, PubMed and Index Medicus for the Eastern Mediterranean Region was carried out in addition to a review of grey literature and relevant datasets in the Syrian Arab Republic. Low to low-intermediate levels of endemicity of both infections were noted at the national level. However, striking geographic differences and high prevalence among high-risk groups were noticeable. As a result of data limitations, further research is needed, and a national control strategy to combat hepatitis B and C in the Syrian Arab Republic should be developed, especially during the current conflict.

Hépatites B et C en République arabe syrienne : analyse

RÉSUMÉ La présente étude examine l'épidémiologie et les déterminants des hépatites B et C en République arabe syrienne, ainsi que leur traitement et leur prévention. Une recherche systématique dans Medline, PubMed et dans l'Index Medicus de la Région de Méditerranée orientale a été menée, en plus d'un examen de la littérature

Review

Hepatitis B and C in the Syrian Arab Republic: a review

H. Bashour¹ and G. Muhjazi²

Epidemiology of hepatitis B and C in the Syrian Arab Republic

Prevalence

In 2004, the Syrian MoH in cooperation with the Central Bureau of Statistics carried out a large serological survey on a random cluster sample with 528 clusters and 3168 individuals (11). The seroprevalence of hepatitis C was 2.8% as indicated by HCV antibodies and 5.6% for hepatitis B as indicated by HBV surface antigen (HBsAg). There was a

التهاب الكبد الفيروسي B و
هيام بشور، غادة محجازي

الخلاصة: يراجع هذا البحث وينا
عن معالجتها والوقاية منها. فقا
بالإضافة إلى مراجعة الأدب الرما
متوطنان على المستوى الوطني به
الغشاة عالية الخطورة كان ملحوظ
التهاب الكبد الفيروسي B و C

B and C in the Syrian Arab
PubMed and Index Medicus
grey literature and relevant
both infections were noted
among high-risk groups were
control strategy to combat
the current conflict.

درية العربية السورية، فضلاً
الخاص بإقليم شرق المتوسط،
حظ أن كلا المرضين المعديين
لاقت وارتقاع الانتشار بين
مع استراتيجية وطنية لمكافحة

ABSTRACT This paper
Republic as well as their
for the Eastern Mediter
datasets in the Syrian Ara
at the national level. How
noticeable. As a result
hepatitis B and C in the

Hépatites B et C en République arabe syrienne : analyse

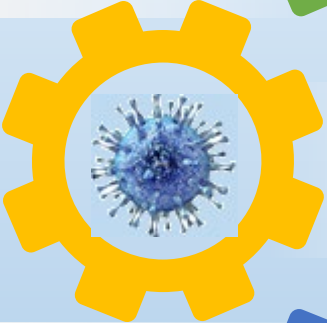
RÉSUMÉ La présente étude examine l'épidémiologie et les déterminants des hépatites B et C en République arabe syrienne, ainsi que leur traitement et leur prévention. Une recherche systématique dans Medline, PubMed et dans l'Index Medicus de la Région de Méditerranée orientale a été menée, en plus d'un examen de la littérature

Study Design Outcomes



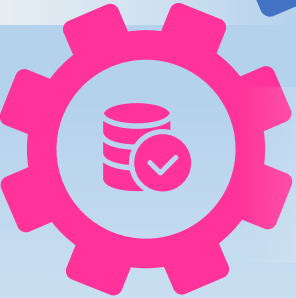
HBV Prevalence

TB Prevalence



CMV Prevalence

HCV Prevalence



Cost Effectiveness Analysis

تحديد حجم العينة باستخدام معادلة Richard Geiger

N: حجم المجتمع

n: حجم العينة

z: الدرجة المعيارية المقابلة لمستوي الثقة

1.96 = مستوى ثقة 95%

2.58 = مستوى ثقة 99%

d: مستوى الخطأ المقبول

0.05 = مستوى ثقة 95%

0.01 = مستوى ثقة 99%

p: معامل الاختلاف بين مفردات المجتمع

0.5 =

$$n = \frac{\left(\frac{z}{d}\right)^2 \times (P)^2}{1 + \frac{1}{N} \left[\left(\frac{z}{d}\right)^2 \times (P)^2 - 1\right]}$$

QI: Population size = 2000,

Confidence level = 95%

Required: Determine the sample size using Richard Geiger equation

CMV (90%) → 139

HBV (5,6%) → 82



HCV (2,8%) → 42

Sample size = 155

Inclusion And Exclusion

- Confirmed diagnosis of IBD based on:
 - established clinical, endoscopic, and/or histological criteria
- Received treatment at the IBD Unit
- At least, Two years follow up



IBD & Opportunistic infections

مدخن المحافظة انثى ذكر الجنس سنة الميلاد

CD UC IBD

Bio treatment date Not Studied Negative Positive IGRA Not Studied Negative Positive TST

HBV Diagnosis date هل حدث تفعل للعد علاج في حال حدوث تفعل للعد

Treatment HCV-PCR Not Studied Negative Positive Anti-HCV

Treatment CMV-Colitis Not Studied Negative Positive Anti-CMV

Not Studied Negative Positive Anti-HBc Not Studied Negative Positive HBsAg

Not Studied Negative Positive HBsAg Not Studied Negative Positive Anti-HBs

Not Studied Negative Positive Anti-HBe Treatment HBV-PCR

Date ALF Date Acute HBV Date HBVr

Age L4: Isolated upper disease L3: Ileocolonic L2: colonic L1: Ileal CD classification

p perianal disease B3 penetrating B2 stricturing B1 non-stricturing, non-penetrating

Extensive UC Left sided UC E Ulcerative proctitis UC classification

S3 S2 S1 S0

استقطاب الفيروسي مستخدم على الفيروسيات مستخدم على الفيروسيات داء حول الفرج ففان الاستجابة على معدلات المناعة

AZA Steroids GOLi ADA IFX UST

Cr INR BIL HGB AST ALT

تم باخذة معومات تفعل الضخ الالتهابي و تبيره و نتائج

S0 asymptomatic
S1 Mild UC passage of four or fewer stools/day (with or without blood), absence of any systemic illness, and normal inflammatory markers (ESR)
S2 Moderate UC passage of more than four stools per day but with minimal signs of systemic toxicity
S3 Severe UC passage of at least six bloody stools daily, pulse rate of at least 90 beats per minute, temperature of at least 37.5°C, haemoglobin of less than 10.5 g/100 ml, and ESR of at least 30 mm/h

IBD & Opportunistic infections

الإسم سنة الميلاد الجنس ذكر أنثى المحافظة مدخن

Bio treatment date

HBV Diagnosis date

CD UC IBD

Not Studied Negative Positive IGRA Not Studied Negative Positive TST

هل حدث تفعل للعدوى علاج في حال حدوث تفعل للعدوى

Treatment HCV-PCR Not Studied Negative Positive Anti-HCV

Treatment CMV-Colitis Not Studied Negative Positive Anti-CMV

Not Studied Negative Positive Anti-HBc Not Studied Negative Positive HBsAg

Not Studied Negative Positive HBsAg Not Studied Negative Positive Anti-HBs

Not Studied Negative Positive Anti-HBs Treatment HBV-PCR

Date ALF Date Acute HBV Date HBVr

Age

L4: Isolated upper disease L3: Ileocolonic L2: colonic L1: Ileal CD classification

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Extensive UC Left sided UC E Ulcerative proctitis UC classification

S3 S2 S1 S0

استقطاب الفيروس مستخدم على الفيروسات مستخدم على الفيروسات تاريخ حول الفرج ففان الاستجابة على معدلات المناعة

Date AZA Date Steroids العلاجات

Date GOLi Date ADA Date IFX

Date UST

التحاليل المخبرية

Cr INR BIL HGB AST ALT

تم بإضافة معومات تفعل الضخ الانتهازية و تبيده و نتائج

S0 asymptomatic

S1 Mild UC passage of four or fewer stools/day (with or without blood), absence of any systemic illness, and normal inflammatory markers (ESR)

S2 Moderate UC passage of more than four stools per day but with minimal signs of systemic toxicity

S3 Severe UC passage of at least six bloody stools daily, pulse rate of at least 90 beats per minute, temperature of at least 37.5°C, haemoglobin of less than 10.5 g/100 ml, and ESR of at least 30 mm/h



PatientID	<input type="text" value="(New)"/>	CMVTreatment	<input type="text"/>	Steroides	<input type="text" value=""/>	CR	<input type="text"/>
FileID	<input type="text"/>	HBsAG	<input type="text" value=""/>	SDurationDays	<input type="text"/>	Note	<input type="text"/>
Patient Name	<input type="text"/>	Anti-HBc	<input type="text" value=""/>	Azathiopuring	<input type="text" value=""/>		
Sex	<input type="text" value=""/>	Anti-HBs	<input type="text" value=""/>	ADurationDays	<input type="text"/>		
PState	<input type="text" value=""/>	HBeAg	<input type="text" value=""/>	IFX	<input type="text" value=""/>		
Smoker	<input type="checkbox"/>	Anti-HBe	<input type="text" value=""/>	IFXDurationweeks	<input type="text"/>		
IBD	<input type="text" value=""/>	HBV-PCR	<input type="text"/>	ADA	<input type="text" value=""/>		
HBVDiagnosisDate	<input type="text"/>	Treatment	<input type="text"/>	ADADurationweeks	<input type="text"/>		
BiotreatmentDate	<input type="text"/>	HBVActivation	<input type="text" value=""/>	Goli	<input type="text" value=""/>		
TST	<input type="text" value=""/>	HBVrDate	<input type="text"/>	GoliDurationweeks	<input type="text"/>		
IGRA	<input type="text" value=""/>	ALF	<input type="text" value=""/>	UST	<input type="text" value=""/>		
TBActivation	<input type="text" value=""/>	ALFDate	<input type="text"/>	USTDurationweeks	<input type="text"/>		
TBTreatment	<input type="text"/>	CDLocation	<input type="text" value=""/>	ALT	<input type="text"/>		
Anti-HCV	<input type="text" value=""/>	CDNature	<input type="text" value=""/>	AST	<input type="text"/>		
HCV-PCR	<input type="text"/>	CDAge	<input type="text" value=""/>	HGB	<input type="text"/>		
HCVTreatment	<input type="text"/>	UCLocation	<input type="text" value=""/>	Bil	<input type="text"/>		



PatientID	<input type="text" value="1"/>	CMVTreatment	<input type="text"/>	Steroides	<input type="text" value="False"/>	CR	<input type="text"/>
FileID	<input type="text"/>	HBsAG	<input type="text" value="Negative"/>	SDurationDays	<input type="text"/>	Note	<input type="text"/>
Patient Name	<input type="text" value="سامر فياض"/>	Anti-HBc	<input type="text" value="Positive"/>	Azathiopuring	<input type="text" value="Ture"/>		
Sex	<input type="text" value="ذكر"/>	Anti-HBS	<input type="text" value="Negative"/>	ADurationDays	<input type="text" value="675"/>		
PState	<input type="text" value="دمشق"/>	HBeAg	<input type="text" value="Not studied"/>	IFX	<input type="text" value="Ture"/>		
Smoker	<input checked="" type="checkbox"/>	Anti-HBe	<input type="text" value="Not studied"/>	IFXDurationweeks	<input type="text" value="84"/>		
IBD	<input type="text" value="CD"/>	HBV-PCR	<input type="text"/>	ADA	<input type="text" value="False"/>		
HBVDiagnosisDate	<input type="text" value="9/21/2022"/>	Treatment	<input type="text"/>	ADADurationweeks	<input type="text"/>		
BiotreatmentDate	<input type="text" value="1/9/2023"/>	HBVActivation	<input type="text" value="Negative"/>	Goli	<input type="text" value="False"/>		
TST	<input type="text" value="Negative"/>	HBVrDate	<input type="text"/>	GoliDurationweeks	<input type="text"/>		
IGRA	<input type="text" value="Not Studied"/>	ALF	<input type="text" value="False"/>	UST	<input type="text" value="False"/>		
TBActivation	<input type="text" value="Ture"/>	ALFDate	<input type="text"/>	USTDurationweeks	<input type="text"/>		
TBTreatment	<input type="text"/>	CDLocation	<input type="text" value="L3:ileocolonic"/>	ALT	<input type="text" value="13"/>		
Anti-HCV	<input type="text" value="Negative"/>	CDNature	<input type="text" value="B1:Non Stricturing"/>	AST	<input type="text" value="15"/>		
HCV-PCR	<input type="text"/>	CDAge	<input type="text" value="A2:17-40"/>	HGB	<input type="text" value="13.7"/>		
HCVTreatment	<input type="text"/>	UCLocation	<input type="text"/>	Bil	<input type="text"/>		
		UCSeverity	<input type="text"/>				

Patients Characteristics

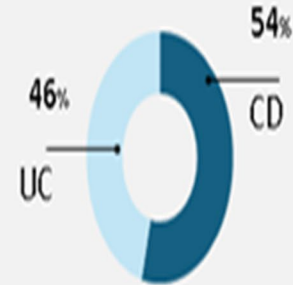
The study evaluated 155 patients consisting of 85 male (55%), 70 female (45%). Among them, 83 patients (54%) were diagnosed with CD, and 72 (46%) with UC, with a median age of 34 years (IQR 24.75-44).

Sample Size

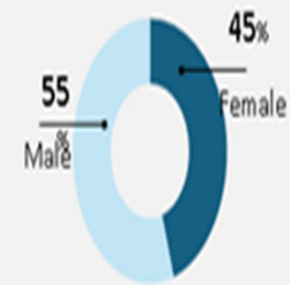


155 IBD Patients

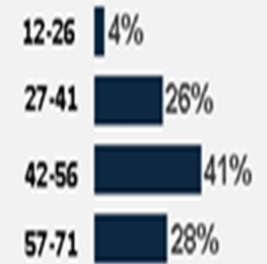
IBD Distribution

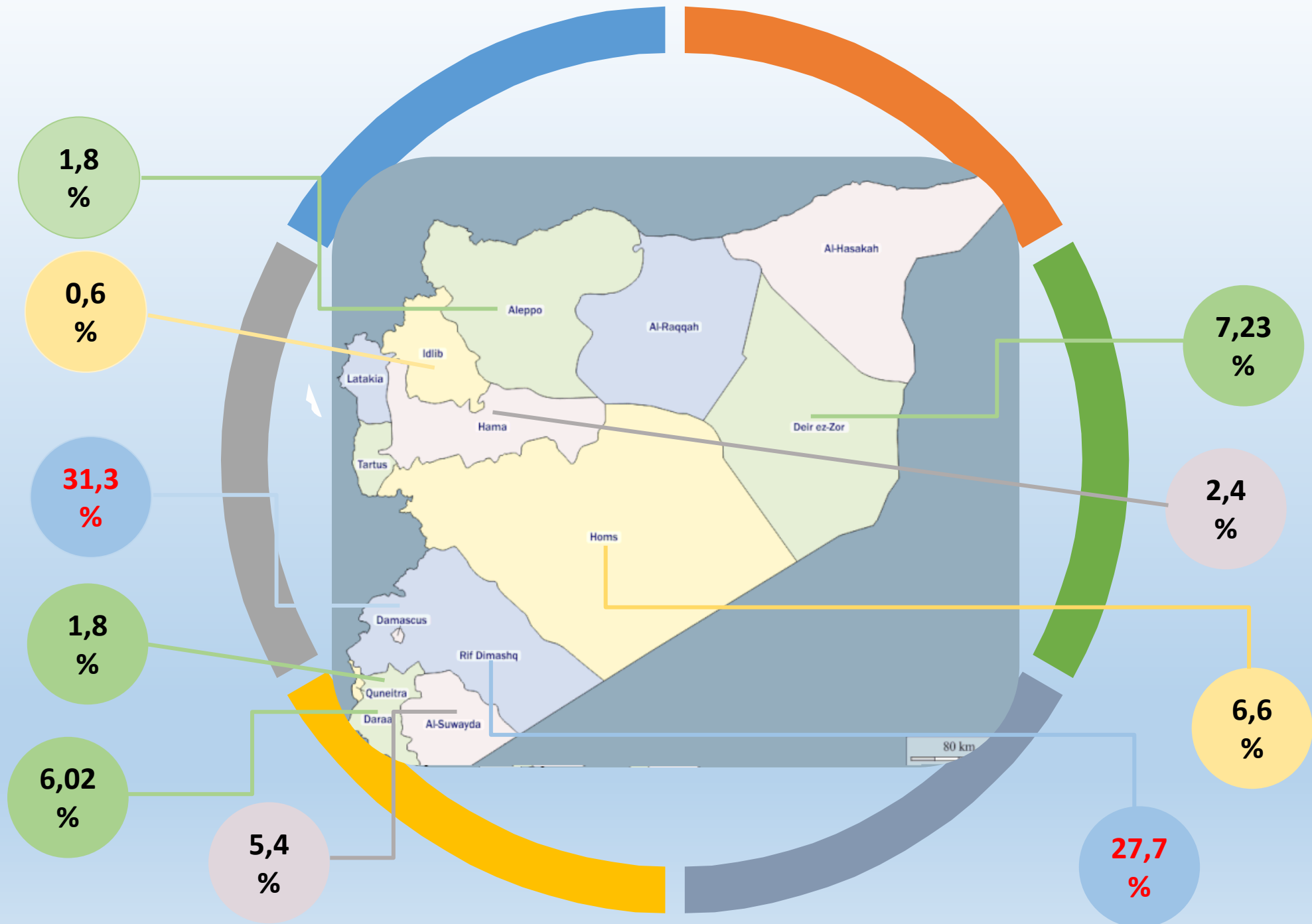


Gender



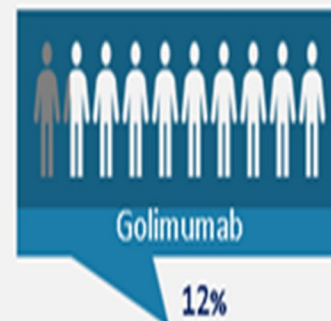
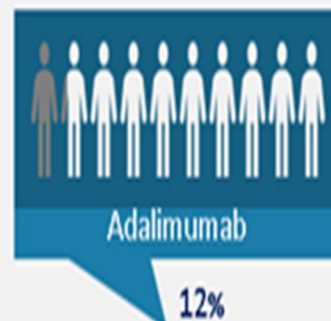
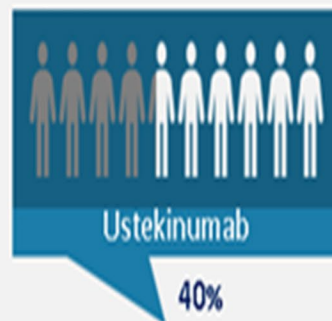
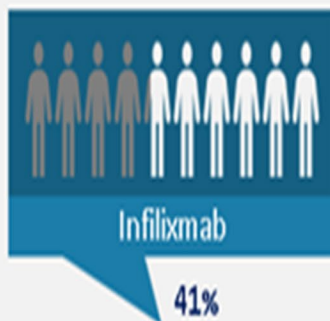
Age



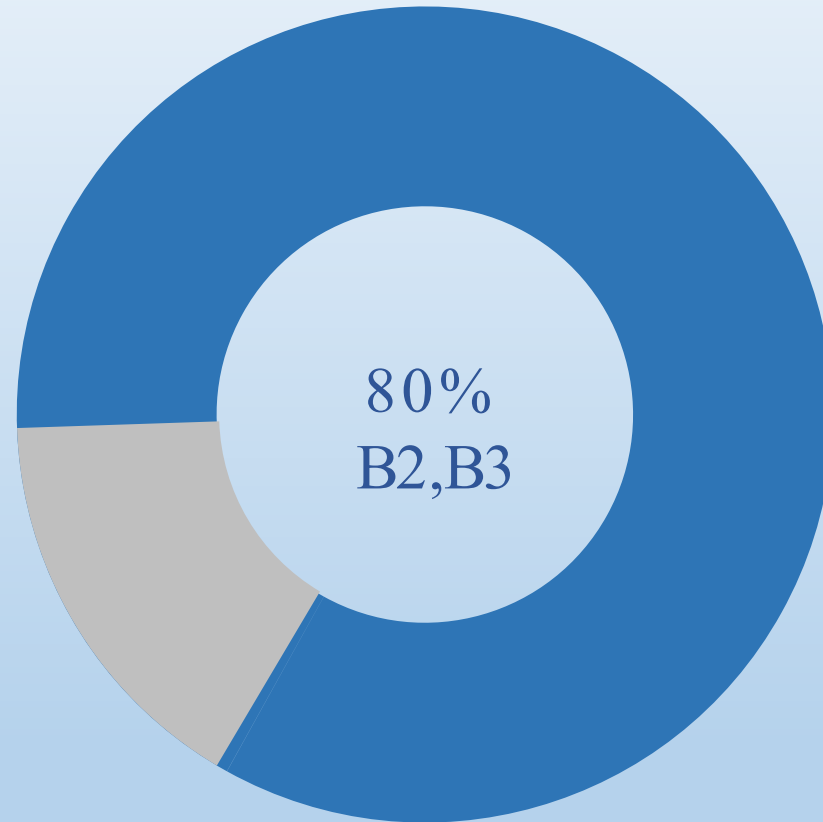


Biologics Utilization

Infliximab (41%) and Ustekinumab (40%) were the most prescribed biologics, followed by Adalimumab and Golimumab (12% each).

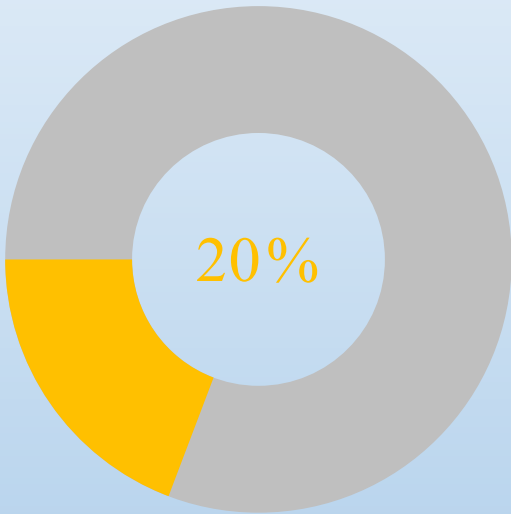


Crohn's Disease Behavior



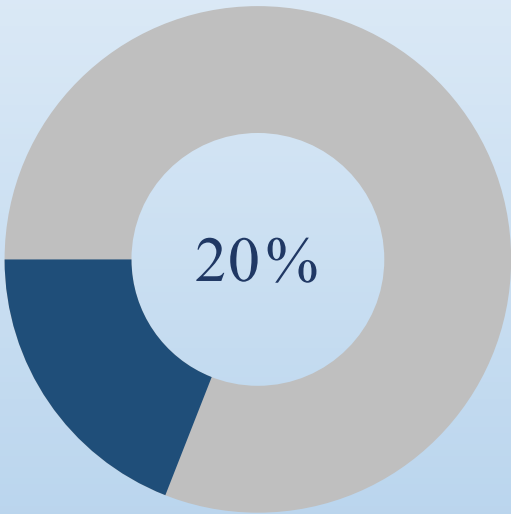
(B2) Strictureing
(B3) Penetrating

Ulcerative Colitis Extent



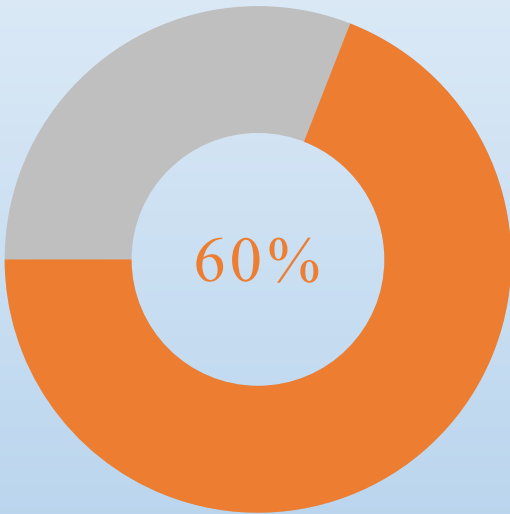
E1

limited to the rectum



E2

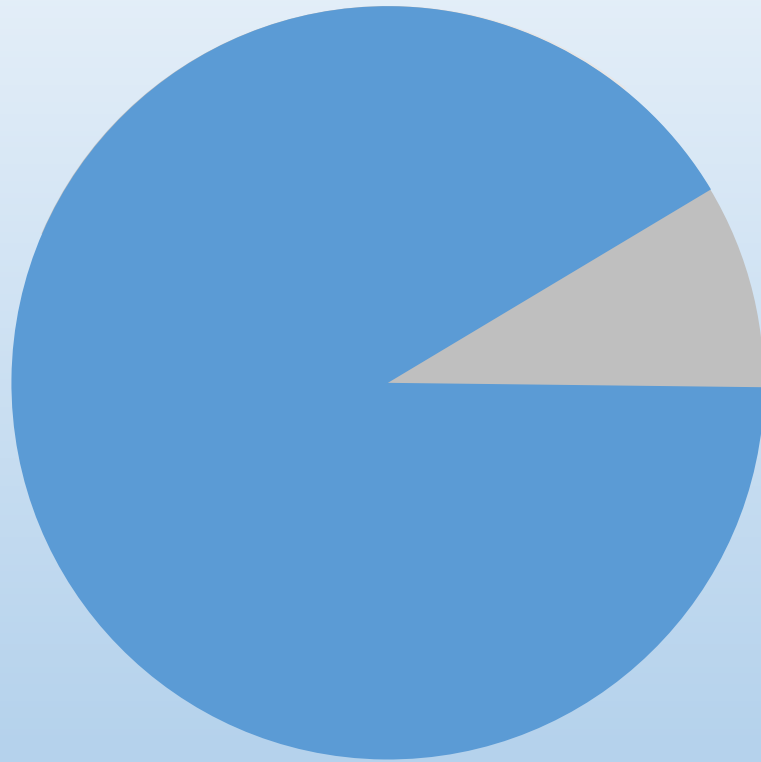
Left-sided UC



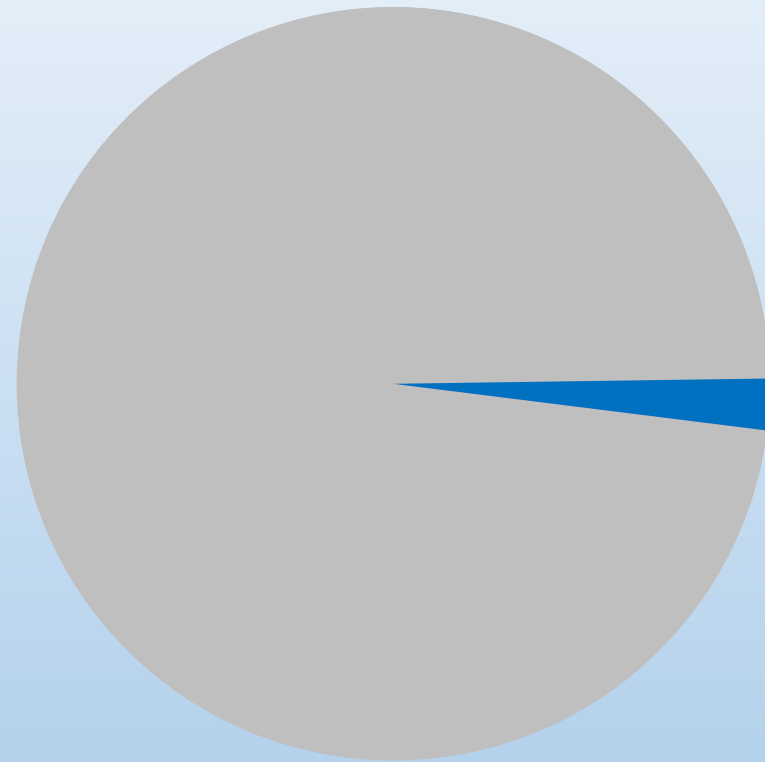
E3

Extensive UC

Cytomegalovirus



Anti CMV IgG
90%



CMV Colitis
1%

Cytomegalovirus



Clinical & Endoscopic
Findings



Several Biopsies
H&E , IHC Stain



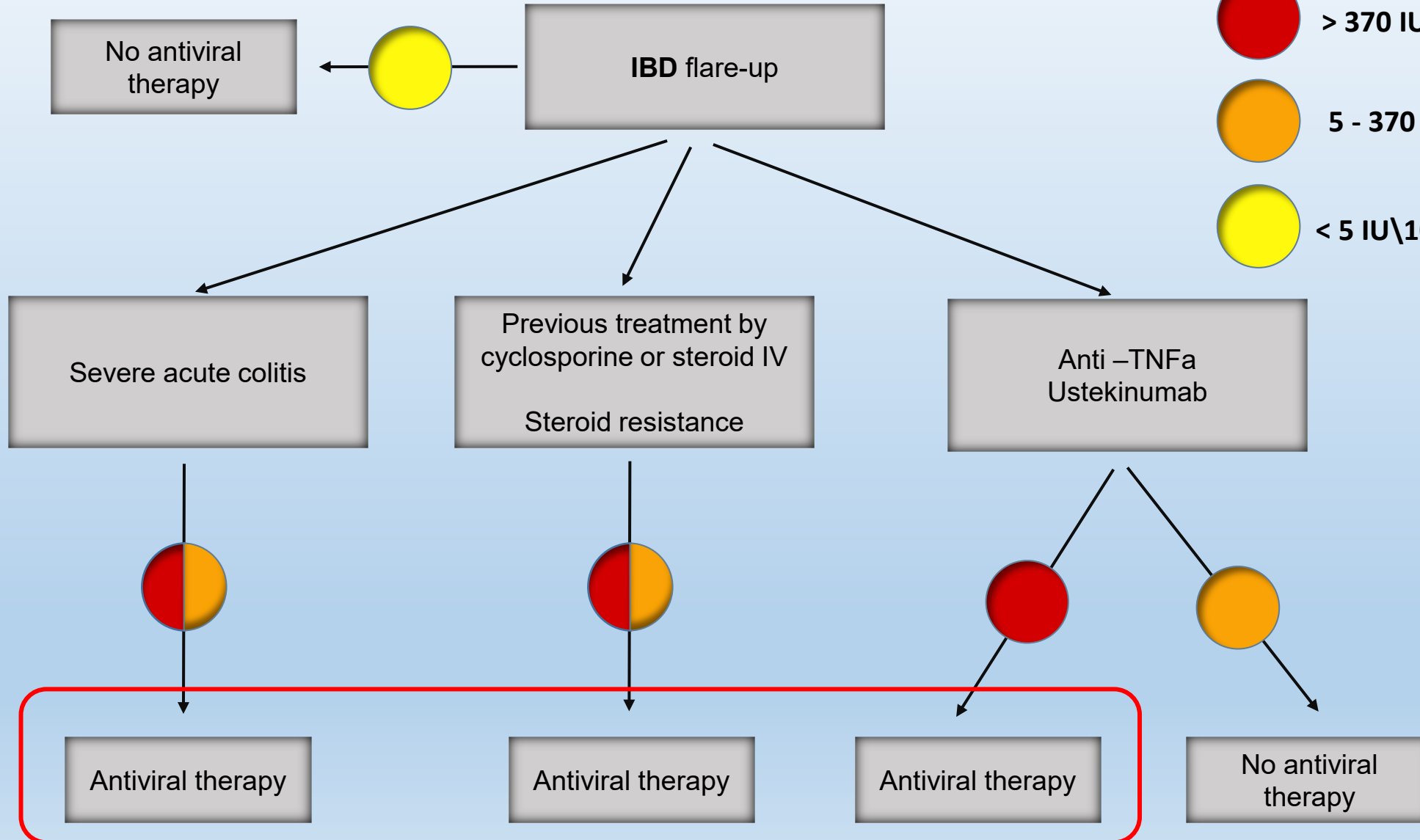
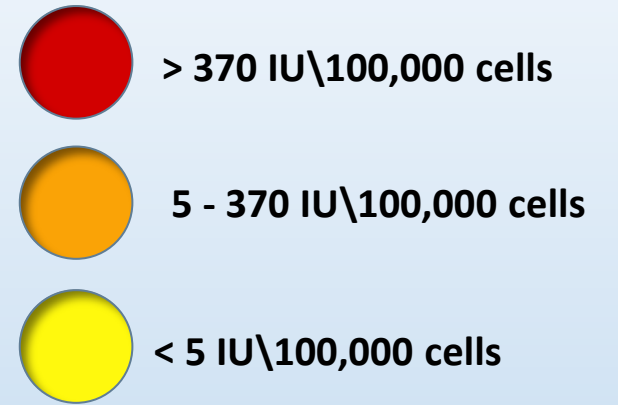
Tissue CMV DNA



More Correct
Diagnosis Chance

Cytomegalovirus

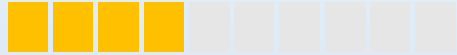
Tissue CMV DNA load



Tuberculosis

TST

N:(8)



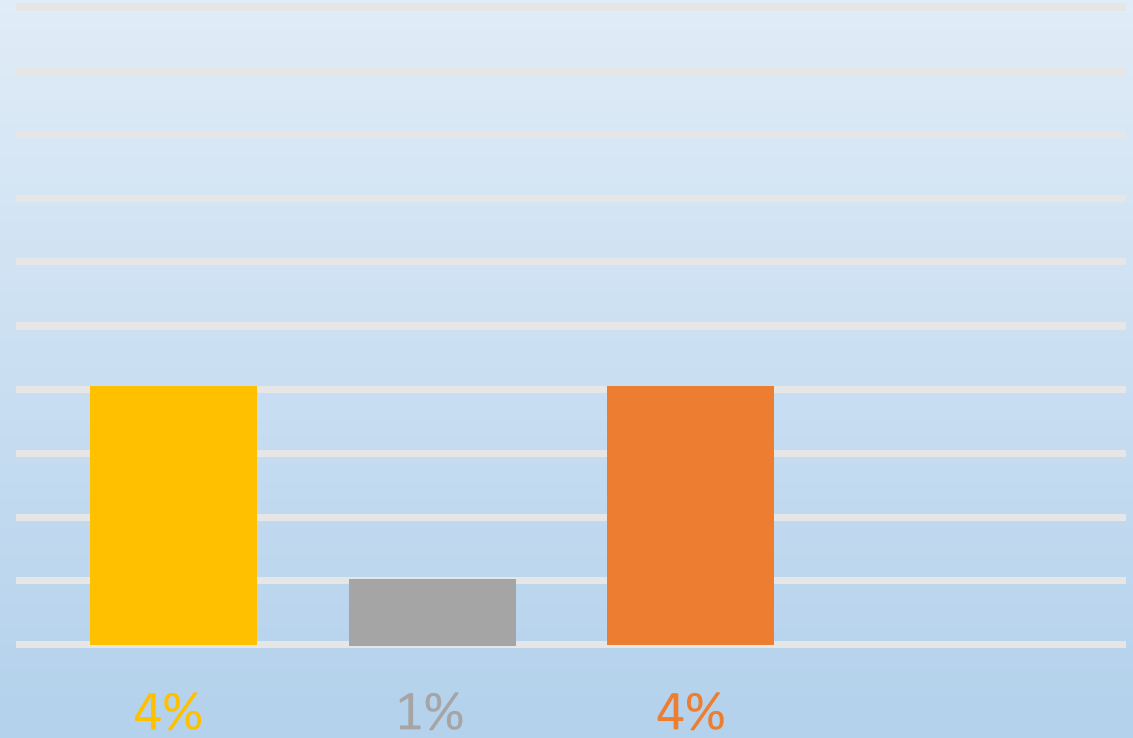
IGRA

N:(2)



Active TB

N:(7)



Tuberculosis

Open Access

Research

BMJ Open Risk of tuberculosis in patients treated with TNF- α antagonists: a systematic review and meta-analysis of randomised controlled trials

Zheng Zhang,¹ Wei Fan,^{1,2} Gui Yang,³ Zhigao Xu,² June Wang,¹ Qingyuan Cheng,¹ Mingxia Yu^{1,3}

To cite: Zhang Z, Fan W, Yang G, *et al.* Risk of tuberculosis in patients treated with TNF- α antagonists: a systematic review and meta-analysis of randomised controlled trials. *BMJ Open* 2017;**7**:e012567. doi:10.1136/bmjopen-2016-012567

► Prepublication history and additional material is available. To view please visit the journal (<http://dx.doi.org/10.1136/bmjopen-2016-012567>).

Received 9 May 2016
Revised 22 February 2017

ABSTRACT

Objectives: An increased risk of tuberculosis (TB) has been reported in patients treated with TNF- α antagonists, an issue that has been highlighted in a WHO black box warning. This review aimed to assess the risk of TB in patients undergoing TNF- α antagonists treatment.

Methods: A systematic literature search for randomised controlled trials (RCTs) was performed in MEDLINE, Embase and Cochrane library and studies selected for inclusion according to predefined criteria. ORs with 95% CIs were calculated using the random-effect model. Subgroup analyses considered the effects of drug type, disease and TB endemicity. The quality of evidence was assessed using the Grades of Recommendation, Assessment, Development and Evaluation (GRADE) approach.

Results: 29 RCTs involving 11 879 patients were included (14 for infliximab, 9 for adalimumab, 2 for certolizumab, 1 for etanercept and 3 for golimumab).

Strengths and limitations of this study

- This meta-analysis evaluated the tuberculosis (TB) risk of all TNF- α antagonists across a variety of conditions in randomised controlled trials (RCTs) with low heterogeneity.
- In addition to the diseases most commonly treated by TNF- α antagonists (rheumatoid arthritis, ulcerative colitis, ankylosing spondylitis and psoriatic arthritis), the review included studies that involved patients with asthma, sarcoidosis and graft-versus-host disease.
- The quality of the evidence was assessed using the GRADE approach, which has been recommended for grading evidence by the *British Medical Journal* since 2006.
- The relatively short follow-up period in the RCTs might have caused an underestimation of the TB rates.

Tuberculosis

Open Access

Research

BMJ Open Risk of tuberculosis in patients treated with TNF- α antagonists: a systematic review and meta-analysis of randomised controlled trials

Conclusions: Findings from our meta-analysis indicate that the risk of TB may be significantly increased in patients treated with TNF- α antagonists. However, further studies are needed to reveal the biological mechanism of the increased TB risk caused by TNF- α antagonists treatment.

To cite: Zhang J, Yang G, *et al.* Risk of tuberculosis in patients treated with TNF- α antagonists: a systematic review and meta-analysis of randomised controlled trials. *BMJ Open* 2017; doi:10.1136/bmjopen-2017-012567

► Prepublication additional material available. To view the full journal article (http://dx.doi.org/10.1136/bmjopen-2017-012567).

Received 9 May 2016
Revised 22 February 2017

100 patients were included (14 for infliximab, 9 for adalimumab, 2 for certolizumab, 1 for etanercept and 2 for golimumab).

might have caused an underestimation of TB rates.

tuberculosis across a controlled study. Commonly used arthritis and studies of tuberculosis. British Journal of Rheumatology. The RCTs of the TB

Tuberculosis

Tuberculin Skin Test Results

Causes of false-negatives

Acquired immunodeficiency syndrome
Alcoholism
Gastrectomy or intestinal bypass
Hematologic or lymphoreticular disorders
Inaccurate reading of induration
Live virus vaccines (measles, mumps, and rubella; poliovirus)*
Malnutrition
Patient age older than 45 years
Renal failure
Sarcoidosis

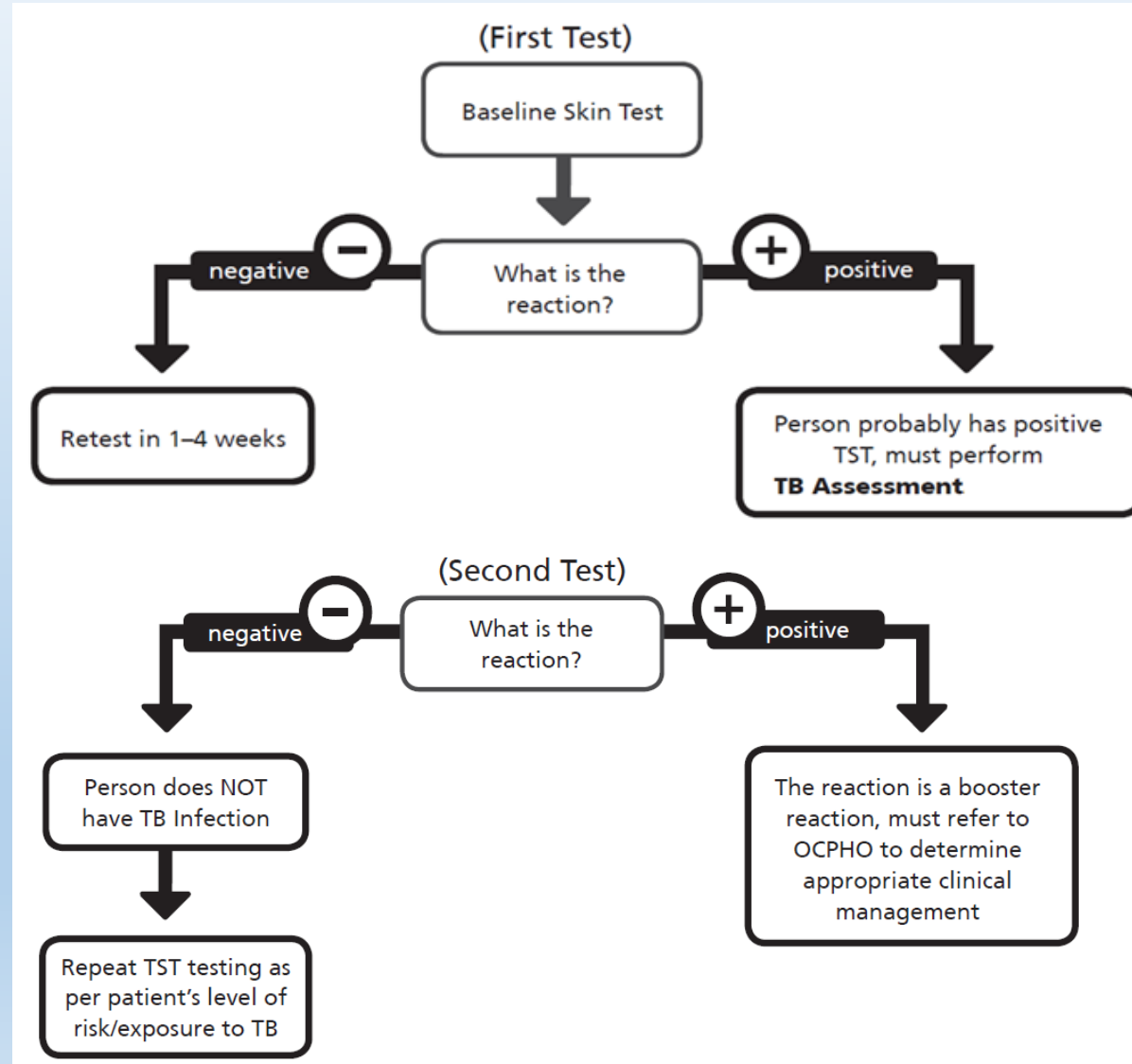
Causes of false-negatives (*continued*)

Systemic viral, bacterial, and fungal infections
Use of corticosteroids or other immunosuppressant medications
Zinc deficiency

Causes of false-positives

Boosting phenomenon†
Cross-reaction with nontuberculous mycobacterial antigens
Error in administering the test
Previous bacille Calmette-Guérin vaccination

Tuberculosis



Two-step Testing and Boosted Reaction

Not BCG Vaccine received

BCG Vaccine received

Tuberculosis

TST \ IGRA

IGRA

TST-
IGRA-

TST+ or
IGRA+

IGRA +

IGRA -

Chest XR

Annual **screening** in high-risk patients

Annual **screening** with IGRA in high-risk patients

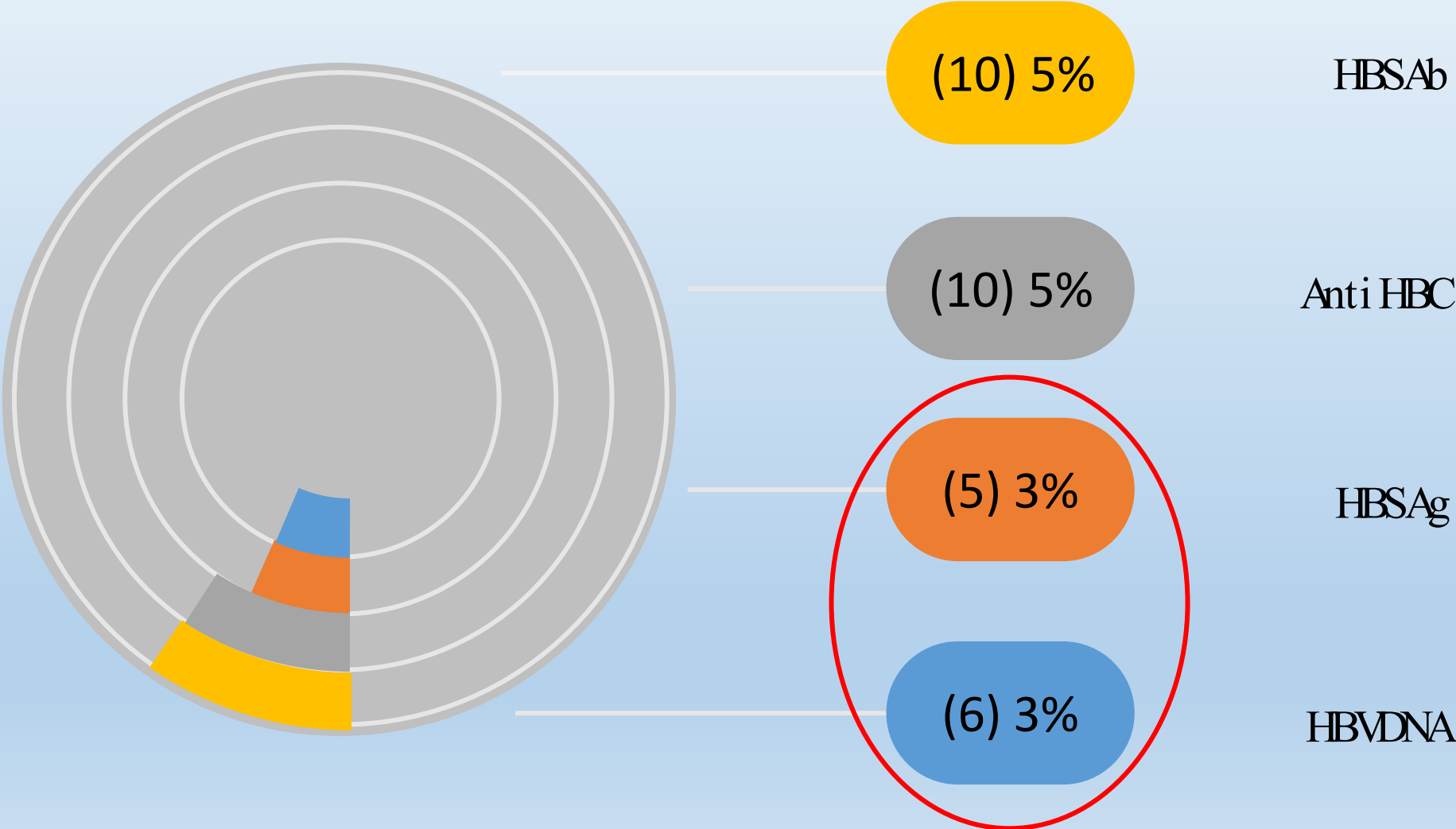
No findings:
LTBI:
prophylaxis

Findings of active TB:
Treatment

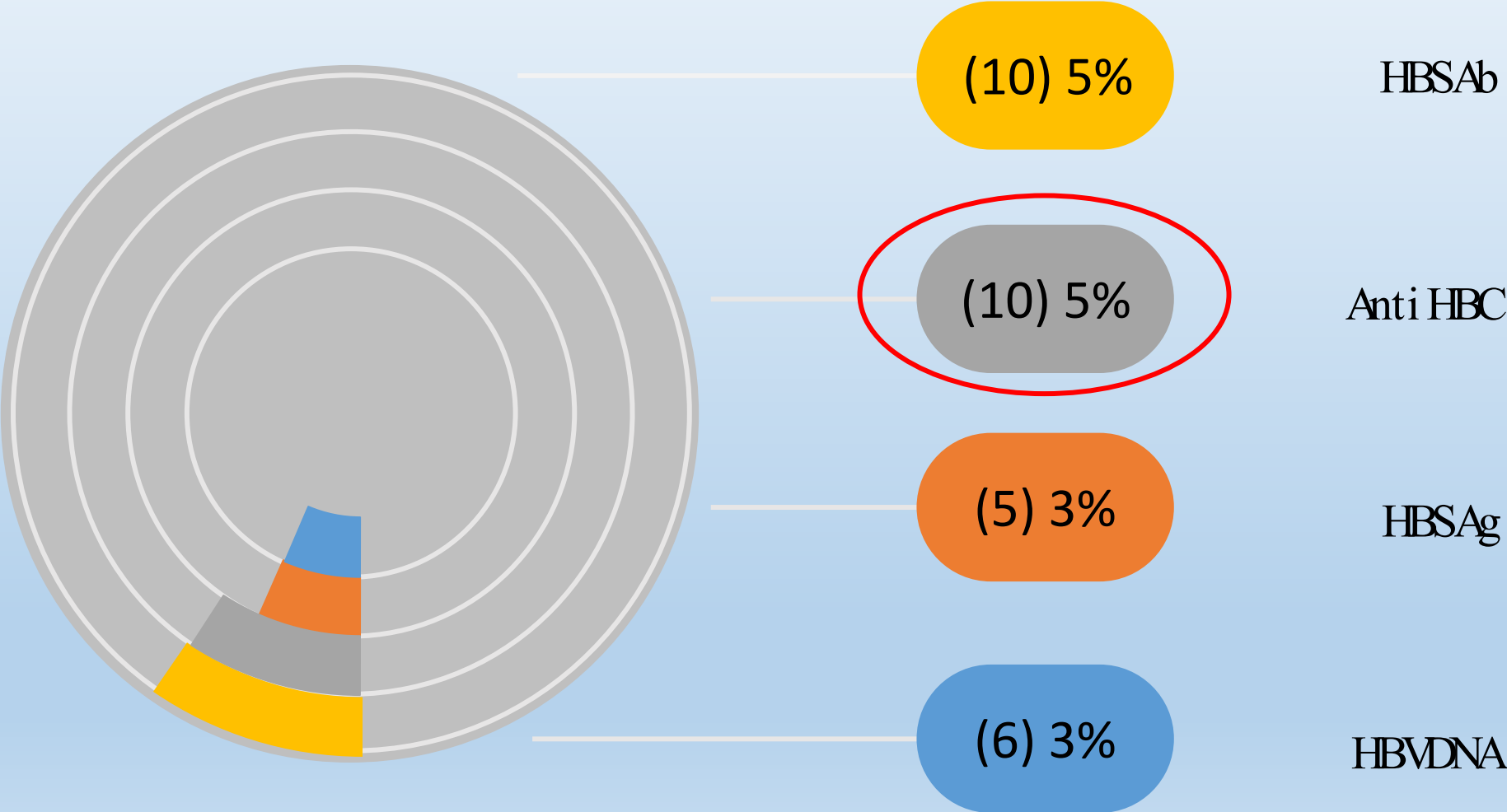
Start biologic therapy month after chemoprophylaxis

Restart biologic therapy after completion of anti-TB therapy

Hepatitis B Virus



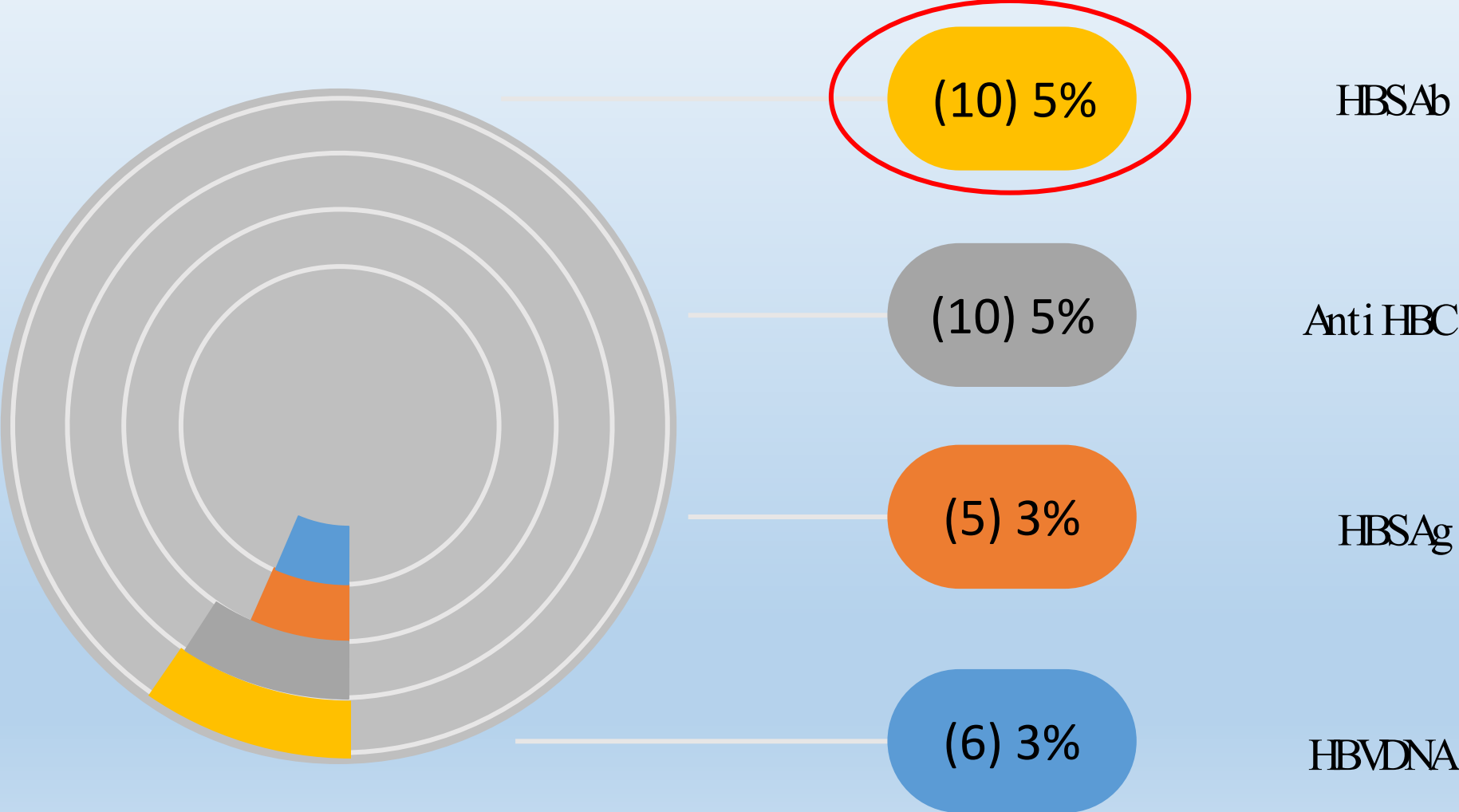
Hepatitis B Virus



Hepatitis B Virus

	AASLD	APASL	EASL
HBV reactivation	<ul style="list-style-type: none">-HBV DNA elevation compared to baseline, or any increase if no baseline available-Previously HBsAg-negative and anti-HBc-positive persons with seroconversion to HBsAg positivity	<ul style="list-style-type: none">-HBV DNA ≥ 2 log increase, or newly appearing HBV DNA to a level ≥ 100 IU/mL in previously stable or undetectable persons-HBV DNA at a level $\geq 20,000$ IU/mL in a person with no previous baseline level	Not clearly defined
Hepatitis flare	Elevation of ALT 3 times greater than the baseline and at a level > 100 U/L	Elevation of aminotransferase levels > 5 times the upper limit of normal and twice the value at baseline	Not clearly defined

Hepatitis B Virus



Rate and Costs of Biologic Treatment Discontinuation in Inflammatory Bowel Disease Patients: A Retrospective Analysis of Governmental Hospital Medical Records in Syria

INTRODUCTION

Inflammatory bowel disease (IBD), which includes Crohn's disease and ulcerative colitis (UC), is a chronic condition that significantly impacts patients' quality of life. Although biologic therapies have transformed the treatment of IBD, their high costs create substantial access barriers, particularly in resource-limited settings like Syria. Treatment discontinuation is common and often attributed to adverse effects, financial constraints, and limited healthcare access. Despite research in other regions, there is limited data on the rate and costs of biologic treatment discontinuation for IBD in Syria.

OBJECTIVES

This study aims to address this gap by analyzing real-world medical records from governmental hospitals to evaluate the rate of biologic treatment discontinuation and the associated costs, defined as the cumulative cost up to the point of discontinuation..

METHOD

An observational, retrospective cross-sectional study analyzed medical records from two governmental hospitals in Syria, Ebn al Nafees and Al-Moujtahed. Patients diagnosed with IBD who received biologic therapy over a two-year period were included. Data collected encompassed age and gender distribution, utilization and costs of biologic treatments, discontinuation rates and the underlying reasons for treatment discontinuation. Mathematical modeling using a bottom-up approach was employed to estimate direct costs of biologic therapy. Costs were collected from hospital administrative centers.

Treatment Dynamics

The analysis revealed that 70% of patients with IBD discontinued biologic treatment, irrespective of the specific biologic agent, within the two-year observation period. The mean time to discontinuation was 55 weeks. Discontinuation was predominantly attributed to medication unavailability (95.7%).

Duration of Therapy



55 weeks (12.6 months)

Missed Doses



Economic Burden

The total direct costs for biologic therapies over the study period amounted to EUR 1,922,622, with an average annual cost of EUR 6,202 per patient. Among patients who discontinued treatment, the cumulative cost up to the point of discontinuation was EUR 1,198,876, accounting for 62.35% of the total expenditure on biologics.



EUR 1,922,622

Total direct costs for biologic therapies



EUR 6,202

Average annual cost per patient for biologic therapies



EUR 1,198,876

Cost of treatment discontinuation



62.35%

Proportion of total expenditure on biologic therapy that was discontinued

Our Recommendations... CMV

- بسبب الإلتشار الواسع لـ CMV والنسبة العالية للخمج الكامن ، يجب التفكير بتشخيص التهاب الكولون الحاد في سياق الـ CMV عند كل مريض IBD لديه هجمة معندة
- مع التأكيد على الصعوبة الكبيرة في إثبات التشخيص والذي يتطلب إجتماع عدة معايير سريرية ومخبرية ونسجية

Our Recommendations... TB

- تعتبر عملية المسح لكشف السل الكامن أو الفعال أمراً حاسماً قبل البدء بمشبطات المناعة وحتى أثناء العلاج نفسه خاصة في حالات عدم الإستجابة أو فقدانها
- تشكل كل من : عوامل الخطر الوبائية ، والفحص السريري ، والتنظير الهضمي مع الخزعات ، صورة الصدر ، و **TST or IGRA** أو كليهما والبوستر ، الوسائل المتوفرة لكشف السل الكامن أو الفعال
- في حال السل الكامن يجب تأجيل العلاج البيولوجي ٤ أسابيع على الأقل من البدء بعلاج السل ، وتأجيله لما بعد الإبتهاء من العلاج السلي في حال السل الفعال
- ننصح بإعادة التقييم السنوي عند المرضى المتواجدين في المناطق متوسطة إلى عالية الإبتشار

Our Recommendations... HBV

- مثبطات المناعة ومنها العلاجات البيولوجية تشكل خطراً هاماً لعودة تفعيل التهاب الكبد ب ، لذلك نؤكد على أهمية المسح قبل بدء العلاج بإجراء : **Alt, Ast, HBSAg, HBSAb, Anti HBC, +\ - HBVDNA**

- يعتبر العلاج الوقائي أساسياً عند المرضى الإيجابي الـ HBSAg وبعض حالات الإيجابي الـ Anti HBC قبل البدء بالعلاج البيولوجي وأثناءه

- قد يكون العلاج المضاد للفيروس وقائي وباكراً أو عند الحاجة حسب الحالة وخطورتها

- التمنيع هو الطريقة الأنجح للوقاية ، مع أهمية مراقبة مستويات الأضداد أثناء العلاج المثبط

Assessing the prevalence of opportunistic infections in Syrian inflammatory bowel disease patients on biological therapy: A multicenter cross-sectional study.

Background:

Hepatitis B virus, hepatitis C virus, cytomegalovirus, and tuberculosis pose significant risks of morbidity and mortality, particularly as opportunistic infections in inflammatory bowel disease patients receiving biological therapy. However, data regarding the prevalence of these infections in this vulnerable population within Syria are currently lacking.

Methods

To determine the prevalence of hepatitis B, hepatitis C, cytomegalovirus, and tuberculosis infections among Syrian individuals treated for inflammatory bowel disease at two hospitals which are major public hospitals in Damascus, the capital of Syria, and are affiliated with the Ministry of Health. We conducted a retrospective chart review. Using a sample size calculation based on a 95% confidence level, a 3% margin of error, and expected prevalence rates, we determined a minimum required sample size of 139 medical records. However, to enhance precision, we evaluated the records of all patients treated with biologics in the IBD units, exceeding the projected minimum.

Results

In this multicenter cross-sectional study evaluating the prevalence of opportunistic infections among Syrian patients diagnosed with inflammatory bowel disease (IBD) and receiving biological therapy, we observed several demographic and clinical characteristics. A total of 155 patients were enrolled comprising males were (45.95%). Among these participants, (46%) were diagnosed with ulcerative colitis (UC).

Opportunistic infections		
The Tuberculin Skin Test (TST) was positive in (4%) of patients	the Interferon Gamma Release Assay (IGRA) demonstrated positive results in (1%) of patients	Tuberculosis activation was documented in (4%) patients.
Hepatitis C Virus (HCV) antibodies were detected in (1%) of patients	Cytomegalovirus (CMV) infection was identified in (90%) of patients, including 2 cases of CMV colitis (1%).	
Hepatitis B Virus (HBV) Screening: HBsAg was positive in (3%) of patients.	Total anti-HBc antibodies were present in (5%) of patients and anti-HBs antibodies were detected in an additional (5%) patients	HBV PCR testing was positive (3%) of patients
Azathioprine (AZA) was administered to (83%) of patients	Infliximab (IFX) to (41%) of patients	Adalimumab (ADA) (12%).
Golimumab (GOLI) (12%).	Ustekinumab (UST) (40%).	

Opportunistic Infections



- Tuberculosis Screening 4%
- Hepatitis C Virus (HCV) antibodies 1%
- HBsAg 3%
- Total anti-HBc 5%
- anti-HBs antibodies 5%
- HBV PCR 3%

Conclusions:

Despite consensus on HBV reactivation risk assessment, there are differences amongst guidelines in particular risk thresholds and management options. Antiviral prophylaxis is essential for people with positive HBsAg or anti-HBc levels before beginning biological treatment. Antiviral therapy might be preemptive or on-demand, depending on the scenario. Vaccination remains the most effective way to prevent HBV. Screening for LTBI is required before commencing immunosuppression, which may be followed by therapy depending on the circumstances. Immunosuppression can reduce the accuracy of diagnostic testing, emphasizing the necessity of early detection. While some studies suggest that some drugs may not increase the incidence of tuberculosis, others raise concerns about long-term usage. Overall, thorough monitoring and personalized treatment are critical for IBD patients receiving immunosuppressive medication.

Progress so far

Show history

- Submission received
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- Editorial assignment
- With editor
- **Peer review**

Your submission

Title

Rates and cost implications of biologic therapy discontinuation in inflammatory bowel disease at two public hospitals in Syria: A retrospective cross-sectional study.

Type

Research

Journal

BMC Health Services Research

Submission ID

e9566038-4529-4140-9787-90a6e0068726

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