US BioTek LABORATORIES · PATIENT REPORT
16020 Linden Av N Shoreline WA, 98133 • cservice@usbiotek.com • +1 206 365 1256

Clinical Laboratory Improvement Amendments

25303-0074

*** US Bio ek** US BioTek.. 16020 Linden Av N, Shoreline WA 98133

Patient ID PAT-100009
Ext ID 25303-0074

Test Patient
Sex: Male • 45yrs • 01-Jan-80

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Clinical Notes .

Mycotoxins, Extensive
Specimen type - Urine, Spot

Collected
05-Sep-26

AFLATOXINS GROUP

TEST	INTERPRETATION	RESULT	H/L	REFERENCE	UNITS
Aflatoxin B1	EQUIVOCAL	1.35	0 1.05 2.1 10.5	(<3.50)	ng/gCR
Aflatoxin B2	Not Present	0.63	0 1.59 3.18 15.9	(<5.30)	ng/gCR
Aflatoxin G1	Not Present	0.02	0 0.66 1.32 6.6	(<2.20)	ng/gCR
Aflatoxin G2	Not Present	0.01	0 1.95 3.9 19.5	(<6.50)	ng/gCR
Aflatoxin M1	Not Present	0.06	0 1.41 2.82 14.1	(<4.70)	ng/gCR
Sterigmatocystin	Not Present	0.03	0 0.105 0.21 1.05	(<0.40)	ng/gCR

GLIOTOXINS GROUP

TEST	INTERPRETATION	RESULT	H/L	REFERENCE	UNITS
Gliotoxin derivative	PRESENT	137.00	0 54 108 540	(<180.00)	ng/gCR

OCHRATOXIN GROUP

TEST	INTERPRETATION	RESULT	H/L	REFERENCE	UNITS
Ochratoxin-A	EQUIVOCAL	0.86	0 0.66 1.32 6.6	(<2.20)	ng/gCR

TRICHOTHECENES GROUP - Type A

TEST	INTERPRETATION	RESULT	H/L	REFERENCE	UNITS
Diacetoxyscirpenol	Not Present	0.020	0 0.84 1.68 8.4	(<2.800)	ng/gCR
HT-2 Toxin	Not Present	0.22	0 1.56 3.12 15.6	(<5.20)	ng/gCR
T-2 Toxin	Not Present	0.110	0 0.15 0.3 1.5	(<0.500)	ng/gCR

TRICHOTHECENES GROUP - Type B

TEST	INTERPRETATION	RESULT	H/L	REFERENCE	UNITS
Deoxynivalenol	Not Present	0.06	0 4.5 9.0 45	(<15.00)	ng/gCR
Nivalenol	Not Present	0.63	0 1.11 2.22 11.1	(<3.70)	ng/gCR

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TRICHOTHECENES GROUP - Type D macrocyclic

TEST	INTERPRETATION	RESULT	H/L	REFERENCE	UNITS
Roridin A	Not Present	1.19		0 1.65 3.3 16.5	(<5.50)	ng/gCR
Roridin E	Not Present	0.39		0 0.96 1.92 9.6	(<3.20)	ng/gCR
Roridin H	Not Present	0.11		0 1.17 2.34 11.7	(<3.90)	ng/gCR
Roridin L-2	Not Present	0.04		0 1.71 3.42 17.1	(<5.70)	ng/gCR
Satratoxin G	PRESENT	0.44	H	0 0.075 0.15 0.75	(<0.30)	ng/gCR
Satratoxin H	Not Present	0.09		0 0.105 0.21 1.05	(<0.40)	ng/gCR
Verrucarin A	PRESENT	0.96		0 0.48 0.96 4.8	(<1.60)	ng/gCR
Verrucarin J	Not Present	0.02		0 0.75 1.5 7.5	(<2.50)	ng/gCR

ZEARALENONE GROUP

TEST	INTERPRETATION	RESULT	H/L	REFERENCE	UNITS
Zearalenone	PRESENT	0.88		0 0.3 0.6 3.0	(<1.00)	ng/gCR

MYCOTOXINS GROUP - Other

TEST	INTERPRETATION	RESULT	H/L	REFERENCE	UNITS
Alternariol	Not Present	0.41		0 0.45 0.9 4.5	(<1.50)	ng/gCR
Chaetoglobosin A	Not Present	0.20		0 2.94 5.88 29.4	(<9.80)	ng/gCR
Citrinin	Not Present	0.88		0 1.56 3.12 15.6	(<5.20)	ng/gCR
Enniatin B1	EQUIVOCAL	0.17		0 0.15 0.3 1.5	(<0.50)	ng/gCR
Fumonisins B1	PRESENT	3.19	H	0 0.66 1.32 6.6	(<2.20)	ng/gCR
Fumonisins B2	PRESENT	2.23		0 0.75 1.50 7.5	(<2.50)	ng/gCR
Fumonisins B3	Not Present	0.50		0 1.26 2.52 12.6	(<4.20)	ng/gCR
Mycophenolic Acid	Not Present	0.11		0 0.75 1.50 7.5	(<2.50)	ng/gCR
Patulin	Not Present	0.02		0 2.25 4.5 22.5	(<7.50)	ng/gCR

TEST	RESULT	H/L	REFERENCE	UNITS
Creatinine, Urine	6.55		(2.47-19.20)	mmol/L

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Mycotoxins Comment

TRICHOTHECENES GROUP ELEVATED (URINE):

Elevated urinary trichothecenes indicate exposure to highly cytotoxic mycotoxins produced by Fusarium, Stachybotrys, and related species. These compounds are potent inhibitors of protein synthesis and are commonly associated with water-damaged buildings and contaminated grains.

Clinically, trichothecene exposure is associated with prominent inflammatory and neurological symptoms, including headaches, fatigue, cognitive dysfunction, mucosal irritation, gastrointestinal disturbance, and immune dysregulation. Trichothecenes are considered among the more clinically aggressive mycotoxins.

From a functional medicine perspective, management requires urgent identification and removal of environmental exposure, particularly from indoor mould sources. Supportive strategies may include inflammatory modulation, antioxidant support, gut barrier protection, and carefully titrated binders under clinical supervision. Due to their potency, treatment should be individualised and paced to avoid symptom exacerbation.

FUMONISIN B1 (FB1) ELEVATED:

Description: A neurotoxic and hepatotoxic mycotoxin from Fusarium species, typically contaminating corn. It disrupts sphingolipid metabolism and cellular membranes.

Symptoms: Neurocognitive symptoms, hepatic enzyme elevations, GI disturbances.

Treatment: Avoid corn-based products, methylation support (B12, folate), liver and neurological detox support.

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MYCOTOXIN	Cellular Activity of Mycotoxins	Symptoms/Other	Association with a "Disease State"
AFLATOXIN	**FAMILY**		
Aflatoxin B1	Binds DNA and RNA replication (6,7)	Shortness of breath (8), Weight loss (10), most potent and highly carcinogenic	Primarily attacks the liver, other organs include kidneys and lungs (11)
Aflatoxin B2	Inhibits DNA and RNA replication (12)	Impaired fetal growth (13, 14)	Affects the liver and kidneys (11)
Aflatoxin G1	Cytotoxic, induces apoptosis in cells, DNA damage (1)	A. flavus is a leading cause of invasive aspergillus in immune compromised patients (15)	Cancer, neonatal jaundice (2, 3, 16)
Aflatoxin G2	Cancer, neonatal jaundice (2, 3, 16)	Aflatoxicosis in humans and animals (15)	Malnutrition, Lung cancer (2, 3, 16)
OCHRATOXIN A			
Ochratoxin A	Inhibits mitochondrial ATP, potent teratogen, immune suppressor (17-19)	Fatigue, Dermatitis, Irritated bowel (20-22)	Kidney disease, Cancer (23-24)
MACROCYCLIC	**TRICHOTHECENES (Group D)**		
Satratoxin G	DNA, RNA and Protein synthesis inhibition (25)	Fatigue (20-22)	Bleeding disorders, Nervous system disorders (23, 24)
Satratoxin H	Inhibits protein synthesis (25)	Fatigue (26)	Breathing issues (29)
Isosatratoxin F	Immunosuppression (30)	Weakened Immune System (30)	
Roridin A	Immunosuppression (30)	Weakened Immune System (30)	-
Roridin E	DNA, RNA and Protein synthesis disruption (25, 32)	Weakened Immune System (30)	Lung and Nasal olfactory problems (31)
Roridin H	Inhibits protein synthesis (25)	Weakened Immune System (30)	-
Roridin L-2	Immunosuppression (30)	Weakened Immune System (30)	-
Verrucarin A	Immunosuppression (30)	-	-
Verrucarin J	Immunosuppression (30)	-	-
GLIOTOXIN	**DERIVATIVE**		
Gliotoxin	Attacks intracellular function in immune system (34)	Memory and Breathing issues (35, 36)	Immune Dysfunction disorders (34)
ZEARALENONE			
Zearalenone	Estrogen mimicry (37, 38)	Early puberty, low sperm counts, cancer (39-42)	Cancer (39,40)

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MYCOTOXINS REFERENCES:

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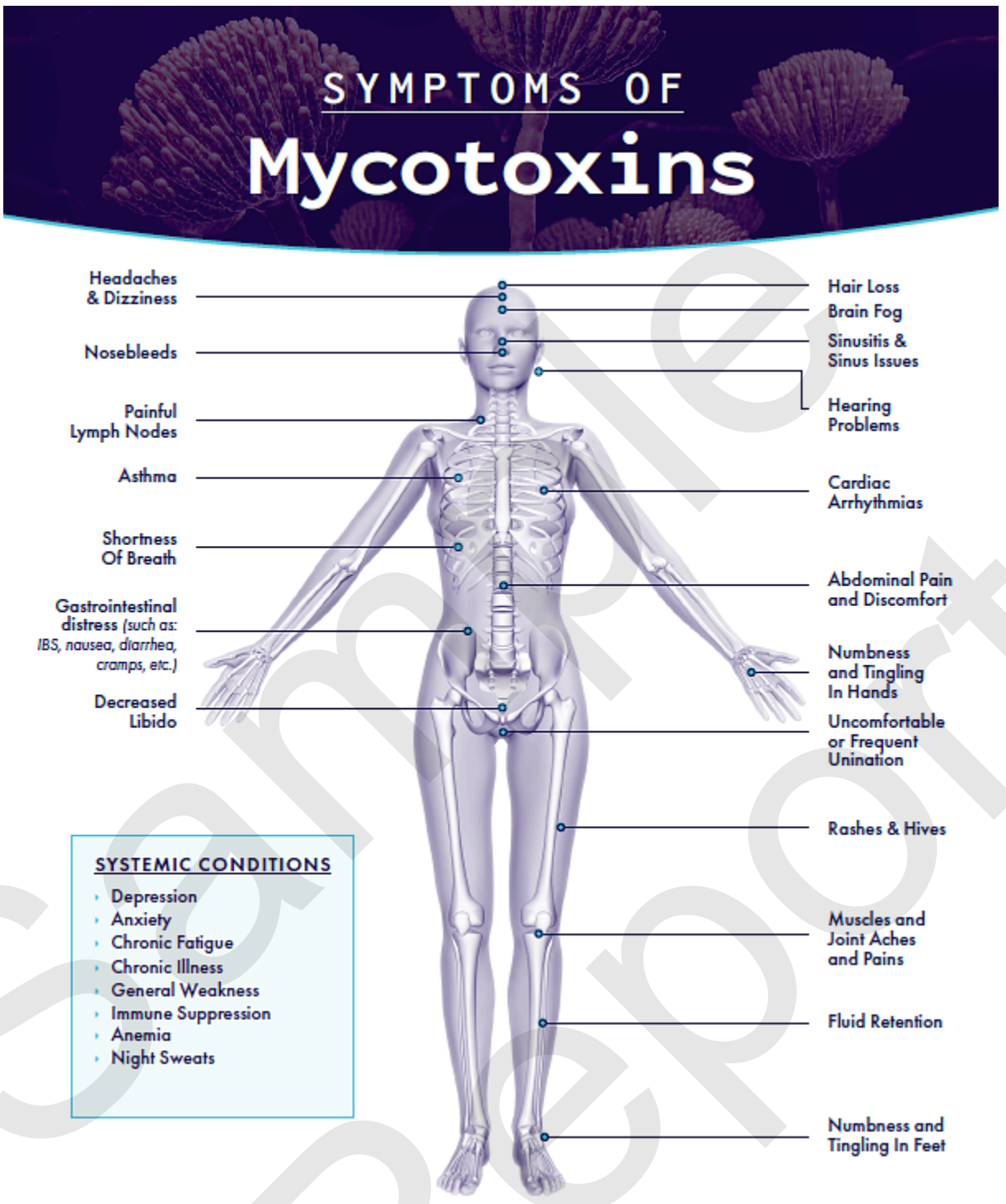
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Methodology

Liquid Chromatography-Mass Spectrometry (LC-MS/MS/MS), Automated Chemistry/Immunochemistry

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