LIST OF INTERFERENCES: CLINICAL CHEMISTRY

S.No	Test Name	Interference effect
		Drugs: No interference was found at therapeutic concentrations using common drug panels. Exceptions: Cefoxitin and Intralipid cause artificially high ammonia results at the therapeutic drug level.
1		Physiological plasma concentrations of sulfasalazine may lead to false results.
	Ammonia	Temozolomide at therapeutic concentrations may lead to erroneous results.
		Effects of concentrations exceeding these recommendations have not been characterized.
		In very rare cases, gammopathy, IgM (Waldenström's macroglobulinemia), may cause unreliable results
		Drugs: No interference was found at therapeutic concentrations using common drug panels.
2	Albumin	In very rare cases, gammopathy, IgM (Waldenström's macroglobulinemia), may cause unreliable results.
	Albumin	
		Commetric methods used for the determination of Abountin may read to faisely elevated test results in patients suffering nom renarrandle of insufficiency due to interference with other proteins. Ininunotaroadmetric methods are less anected
3	Amylase	Drugs: No interference was found at therapeutic concentrations using common drug panels.
		In very rare cases, gammopathy, IgM (Waldenström's macroglobulinemia), may cause unreliable results.
		Colorimetric methods used for the determination of Albumin may lead to falsely elevated test results in patients suffering from renal failure or insufficiency due to interference with other proteins. Immunoturbidimetric methods are less affected
4	A1AT	Anticoagulants: Interference was found with citrate, fluoride, and EDTA
		Glucose: No significant interference from glucose up to a concentration of 111 mmol/L (2000 mg/dL). Approximately 10 % higher recovery was found at glucose concentrations of 250 mmol/L (4500 mg/dL).
		Ascorbic acid: No significant interference from ascorbic acid up to a concentration of 100 mg/dL.
		Druss: No interference was found at therapeutic concentrations using common drug panels.
		In very rare cases, gammopathy, IgM (Waldenström's macroglobulinemia), may cause unreliable results
<u> </u>	Alkaline Phosphate	Druss: No interference was found at therapeutic concentrations using common drug nanels.
5		In very rare cases, sammonathy I/M (Waldenström's macroglobulinemia), may cause unreliable results
		Drugs: No interference was found at therapeutic concentrations using common drug nanels.
6	ALT (SGPT)	In very rare cases, sammonathy, in particular type JoM (Waldenström's macroslobulinemia), may cause unreliable results
		Drugs: No interference was found at therapeutic concentrations using common drug names
7	AST(SGOT)	In very rare cases, sammonathy, in particular type JoM (Waldenström's macroslobulinemia), may cause unreliable results
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8	BUN	Turnionani noi niy case crioneoasy ce viace results.
		Drugs, i to menetene vas rouma u notigiular tune land Waldansträn's merendobulinamia) may cause unreliable resulte
		In toy fait case, gaining any, in particular type gain ("data statements), nay case difference results
9	Bicarbonate	Drugs, to interference was found at interference concentrations using common outpatients in a second s
		In very rate cases, gammobarity, in particular type rgw (watchstown is mate/goounnema), may cause unchanter results
		minimize good miss to significant interference from manual good miss of to a concentration of $55 ger (2555 \mu more)$
1		Magnesuni. No significant interference non integressini up to a concentration of 15 minore (50.5 migue).
	Calcium	Drugs, No interference was journe at interapeuts concentrations using common our generation and a use total (Omnicon® Ostimark®) but no interference use found at the thermatic concentration. Interferences at higher
10		The interference of interference of interference was journed at the interference of interference was journed at the interference of interference was journed at the interference of interferen
1		Concentrations were observed.
		(ingine resonance maging) contast negative states (contastants) of the interference was found at the interference at agence concentrations were concentrations and concentrations are concentrating are concentrating are concentrations are concentrations ar
		In very rate cases, gammobarry, in particular type rgw (watchstown is mately goodinema), may cause unchance results
		Drugs. No interference was found at interapeutic concentrations using common outgoards and the appendix concentration when used as an antidate and the acetaminonhan metabolite N. acetul. n. benzaguinone invite (NAPOI) independently
11	Cholesterol	rectaminisplint into Acatoria are requering reactive win reactive system. Receive seene are the account of the
11		inary cause instruction to statis.
		Vemplateure should be benomined into the administration of metamizore, vemplateure immediately are of during the administration of metamizore and vemplateure interval and the administration of metamizore and vemplateure interval and the administration of metamizore and vemplateure interval and v
		In very rate cases, gammobarry, in particular type rgw (watchestorm) is nate organized and the case of the cases of the case of the cases of the cas
12	CPK	Drugs, two interference was found at interdepend concentrations using common our planets. Exception: Cyanoki (nyuoxocoatanini) at interdepend concentrations interferes with the test.
		In yety rare cases, gammopany, in particular type fight (wateristions interformenta), may cause unrenate results
	Chloride	The following drugs have been tested and caused no significant interference when added to anytons of profeer normal number setum up to the indicated concentration. Faisely high choice values have been reported from patients feetiving approximation and the approximation of profeering and the choice of the approximation of t
13		Actorison (According) 200 mell Acottalianti in the state of the line of the state o
		Acceleration of the second sec
		I/O/L, todproten 500 mg/L, intranpia forous mg/L, i-Loba 20 mg/L, wentyaoba 20 mg/L, wentymazon 200 mg/L, rentybutazone 400 mg/L, Knampien ou mg/L, Theophysine for mg/L, interprotein a second and a second a sec
	Creatinine	Pytrate: No significant menterine from phrase up to a concentration of 0.5 mm/b/ (2.6 mg/dL).
		Gucose: No significant interference from gucose up to a concentration of 25 minol/ (400 mg/dL).
14		Ascorote actor to significant interference from ascorote actor up to a concentration of 5 mmo/L (88 mg/dL).
14		Drugs: No interference was found at therapeutic concentrations using common drug panels.
		Exception: Antibiotics containing cephalosport lead to significant talse-positive values, Cetoxitin causes artificially high creatinine results, Cyanokit (Hydroxocobalamin) may cause interference with results.
		The presence of ketone bodies can cause artificially high results in serum and plasma
<u> </u>		In very rare cases, gammopany, in particular type 1gM (waldenstrom's macroglobulinema), may cause unreliable results
1	C-RP	Recuration factors: No significant interference from rheumatoid factors up to a concentration of 1200 IU/mL.
15		High dose nook-effect: No faise result occurs up to a CKP concentration of 1200 mg/L.
		Immunoglobulins: No significant interference from immunoglobulins up to a concentration of 50 g/L (334 µmol/L) (simulated by human immunoglobulin G).
		Drugs: No interference was found at therapeutic concentrations using common drug panels.
		Significantly decreased CRP values may be obtained from samples taken from patients who have been treated with carboxypenicillins.
		In very rare cases, gammopathy, in particular type IgM (Waldenström's macroglobulinemia), may cause unreliable results
16	Direct Bilirubin	In very rare cases, gammopathy, in particular type IgM (Waldenström's macroglobulinemia), may cause unreliable results
		Drugs: No interference was found at therapeutic concentrations using common drug panels xception: Phenylbutazone causes artificially low bilirubin results.
17	Glucose	Drugs: No interference was found at therapeutic concentrations using common drug panels.

• /	Glucose	In very rare cases, gammopathy, in particular type IgM (Waldenström's macroglobulinemia), may cause unreliable results
		Rheumatoid factors: No significant interference from rheumatoid factors up to a concentration of 1200 IU/mL.
10		High-dose hook effect: No false result occurs up to a hantoglobin concentration of 12 g/L
18	Haptoglobin	Druss: No interference was found at therapeutic concentrations using common drug panels.
		In very rare cases, gammopathy, in particular type IgM (Waldenström's macroglobulinemia), may cause unreliable results
		Abnormal haemoglobins might affect the half life of the red cells or the in vivo glycation rates. In these case correct results do not reflect the same level of glycemic control that would be expected in patients with normal haemoglobin. Whenever it
		is suspected that the presence of an Hb variant (e.g. HbSS, HbCC or HbSC) affects the correlation between the HbA1c value and glycemic control, HbA1c must not be used for the diagnosis of diabetes mellitus
		Any cause of shortened erythrocyte survival or decrease in mean erythrocyte age will reduce exposure of erythrocytes to glucose with a consequent decrease in mmol/mol HbA1c values (IFCC) and % HbA1c values (DCCT/NGSP). Causes of
		shortened erythrocyte lifetime might be haemolytic anaemia or other haemolytic diseases, homozygous sickle cell trait, pregnancy, recent significant or chronic blood loss, etc. Similarly, recent blood transfusions can alter the mmol/mol HbA1c
19	HBA1C	values (IFCC) and % HbA1c values (DCCT/NGSP). When interpreting the HbA1c results from patients with these conditions. HbA1c must not be used for the diagnosis of diabetes mellitus in the presence of such conditions
		Glycated HbF is not detected by the assay as it does not contain the glycated β -chain that characterizes HbA1c. However, HbF is measured in the total Hb assay and as a consequence, specimens containing high amounts of HbF (> 7 %) may
		result in lower than expected mmol/mol HbAIc values (IPCC) and % HbAIc values (DCC1/NGSP
		In very rare cases of rapidly evolving type 1 diabetes the increase of the HAA1c values might be dealyed compared to the acute increase in glucose concentrations.
		Glycema: No significant interference from glucose up to a concentration of 55.5 mmo/L (1000 mg/dL). A fasting sample is not required
		Recumation factors: No significant interference from recumational dators up to a concentration of 750 IU/mL.
		Drugs: No interference was iound at therapeutic concentrations using common drug panels.
1		Lievated concentrations of iree tarty actos and denatured proteins may cause taskey levated hDL-conjecterol results.
20		Assorbed and not significant memory and a start of the source of the sou
20	HDE Choi	combinant we nucleon and the service of the service
		comparison neurosy result do ne presente on poportenis wan donorman drug pande.
		Drugs, to increase was journed as increased or concentrations and ground or the acconcentration of 1200 III/mI
		This hose hose-effect: No false result up to an JeA concentration of 100 e71 occurs due to an antigen excess within polyclonal specimens.
21	IGA /IGG/ IGM	There is no cross-reaction between IgA and IgG or IgM under the assay conditions.
		Drugs: No interference was found at therapeutic concentrations using common drug panels.
		Drugs: No interference was found at therapeutic concentrations using common drug panels.
		In patients treated with iron supplements or metal-binding drugs, the drug-bound iron may not properly react in the test, resulting in artificially low values
22	IRON	In the presence of high ferritin concentrations > 1200 µg/L the assumption that serum iron is almost completely bound to transferrin is not valid anymore. Therefore, such iron results should not be used to calculate Total Iron Binding Capacity
		(TIBC) or percent transferrin saturation (% SAT)
		In very rare cases, gammopathy, in particular type IgM (Waldenström's macroglobulinemia), may cause unreliable results
		Drugs: No interference was found at therapeutic concentrations using common drug panels.
		Venipuncture should be performed prior to the administration of metamizole. Venipuncture immediately after or during the administration of metamizole may lead to falsely low results. A significant interference may occur at any plasma
		metamizole concentration. Exception: Calcium dobesilate causes artificially low lactate results Glycolate, a metabolite of ethylene glycol, causes a positive interference which is variable from lot to lot of reagent. Dicynone (Etamsylate) at
23	LACTIC ACID	therapeutic concentrations may lead to false-low results.
		Acetaminophen intoxications are frequently treated with N-acetylcysteine. N-acetylcysteine at a plasma concentration above 1497 mg/L and the acetaminophen metabolite N-acetyl-p-benzoquinone imine (NAPQI) independently may cause falsely
		low results.
		In very rare cases, gammopathy, in particular type IgM (Waldenstrom 's macroglobulinema), may cause unreliable results.
		Drugs: No interference was found at therapeutic concentrations using common drug panels
24	LDH	Contamination with anythropytae will alaysta results because the applyte level in anythropytae is higher than in normal sers. The level of interference may be variable depending on the content of anythria in the lyced anythropytae
		containmation with Cythrocytes with Cytate results, because the analytic teve in Cythrocytes is neglice that interfedence may be variable depending on the content of analytic in the tyte Cythrocytes.
		In very rate cases, gammobarry, in particular type rgw (watchstown is nactogroummenta), nay cause unrenaoie results
		Drugs, to interfere was found at interdepend concentrations using common drug particles.
		Acetamino the function of the second se
		cause falsely low LDL-C results
		Veniuncture should be performed prior to the administration of metamizole. Venipuncture immediately after or during the administration of metamizole may lead to falsely low results
25	LDL	Ascorbic acid: No significant interference from ascorbic acid up to a concentration of 28.4 mmol/L (500 mg/dL).
		Abnormal liver function affects lipid metabolism; consequently HDL and LDL results are of limited diagnostic value. In some patients with abnormal liver function, the LDL-cholesterol result is significantly negatively biased versus beta
		quantification results.
		EDTA plasma may cause decreased values compared to serum.
		In very rare cases, gammopathy, in particular type IgM (Waldenström's macroglobulinemia), may cause unreliable results
26	LIPASE	Drugs: No interference was found at therapeutic concentrations using common drug panels
20	LIIIIDL	In very rare cases, gammopathy, in particular type IgM (Waldenström's macroglobulinemia), may cause unreliable results.
27	MAGNESIUM	Drugs: No interference was found at therapeutic concentrations using common drug panels
		In very rare cases, gammopathy, in particular type IgM (Waldenström's macroglobulinemia), may cause unreliable results.
		Rheumatoid factors: No significant interference up to a concentration of 1200 IU/ML
28	MICROALBUMIN	Drugs: No interference was found at therapeutic concentrations using common drug panels
		In very rare cases, gammopathy, in particular type IgM (Waldenström's macroglobulinema), may cause unreliable results.
~	DUOGDUODUG	Drugs: No interference was found at therapeutic concentrations using common drug panels Exception: Phospholipids contained in liposomal drug formulations (eg AmBisome) may be hydrolyzed in the test due to the acidic reaction Ph and thus
29	PHOSPHORUS	iea to erevatea prospnate results.
		In very rare cases, gammopany, in particular type IgM (waterstrom s matrogroummema), may cause unrenatore results.
20	PROTEIN (TOTAL)	Dextrain to significant interference non-dextrain up to a concentration of 50 mg/mi
50		Drugs, tvo interference was jouint at inclupents concentrations using common due parents
L		in very fare cases, gammopathy, in particular type igni (wadenstrom s macrogrounnenna), may cause unchable results.

31	POTASSIUM	The following drugs have been tested and caused no significant interference when added to aliquots of pooled normal human serum up to the indicated concentration. Falsely high chloride values have been reported from patients receiving perchlorate medication. This is due to an interference of perchlorate ions with chloride ISE determinations
		Acetaminophen (paracetamol) 200 mg/L, Acetylszteine 1660 mg/L, Acetylsalicylic acid 1000 mg/L, Ampicillin-Na 1000 mg/L, Ascorbic acid 300 mg/L, Cefoxitin 2500 mg/L, Cyclosporin 5 mg/L, Doxycycline 50 mg/L, Heparin 5000 [U/L, Ibuprofen 500 mg/L, Intralipid 10000 mg/L, L-Dopa 20 mg/L, Methyldopa 20 mg/L, Metronidazol 200 mg/L, Phenylbutazone 400 mg/L, Rifampicin 60 mg/L, Theophylline 100 mg/L.
32	SODIUM	The following drugs have been tested and caused no significant interference when added to aliquots of pooled normal human serum up to the indicated concentration. Falsely high chloride values have been reported from patients receiving perchlorate medication. This is due to an interference of perchlorate ions with chloride ISE determinations
		Acetaminophen (paracetamol) 200 mg/L, Acetylcysteine 1660 mg/L, Acetylsalicylic acid 1000 mg/L, Ampicillin-Na 1000 mg/L, Ascorbic acid 300 mg/L, Cefoxitin 2500 mg/L, Cyclosporin 5 mg/L, Doxycycline 50 mg/L, Heparin 5000 IU/L, Ibuprofen 500 mg/L, Intralipid 10000 mg/L, L-Dopa 20 mg/L, Methyldopa 20 mg/L, Metronidazol 200 mg/L, Phenylbutazone 400 mg/L, Rifampicin 60 mg/L, Theophylline 100 mg/L.
33	RF	High dose hook-effect: Using the prozone check automatically performed by the analyzer, no false result without a flag was observed up to an RF concentration of 6000 IU/m L Drugs: No interference was found at therapeutic concentrations using common drug panels In very rare cases, earnmonathy, in particular type IgM (Waldenström's macroelobulinemia), may cause unreliable results.
34	Total Bile Acid	Bile Acid concentrations of 10.0 µmol/l and 100 µmol/l and found not to interfere with Ascorbic Acid 3mg/dl & Intralipid 500 mg/dl
35	Total Bilirubin	Drugs: No interference was found at therapeutic concentrations using common drug panels.
		Indican: No significant interference from indican up to a concentration of 0.12 mmol/L (3 mg/dL).
		Cyanokit (Hydroxocobalamin) may cause falsely low results. Samples containing indocyanine green must not be measured.
		Results from certain multiple myeloma patients may show a positive bias in recovery. Not all multiple myeloma patients show the bias and the severity of the bias may vary between patients.
		Immunoglobulins: No significant interference from immunoglobulins up to a concentration of 28 g/L (187 µmol/L) (simulated by human immunoglobulin G)
		In very rare cases, gammopathy, in particular type IgM (Waldenström's macroglobulinemia), may cause unreliable results
		Prozone Check: The flag > Kin is an indicator for extremely high triglyceride concentrations in the sample. False normal results are due to oxygen depletion during assay reaction.
		Endogenous unesterified glycerol in the sample will falsely elevate serum triglycerides.
		Dicynone (Etamsylate) at therapeutic concentrations may lead to false-low results
		Drugs: No interference was found at therapeutic concentrations using common drug panels.
36	TRIGLYCERIDES	Exception: Ascorbic acid and calcium dobesilate cause artificially low triglyceride results. Intralipid is directly measured as analyte in this assay and leads to high triglyceride results.
		Acetaminophen intoxications are frequently treated with N-Acetylcysteine. N-Acetylcysteine at a plasma concentration above 166 mg/L and the Acetaminophen metabolite N-acetyl-p-benzoquinone imme (NAPQI) N-Acetylcysteine at a plasma
		concentration above 106 mg/L and the independently may cause takety low results
		Venpuncture should be performed prior to the administration of Metamizole. Venpuncture immediately after or during the administration of Metamizole may lead to talsely low results
		A significant interference may occur at plasma Metamizole concentrations above 0.05 mg/MI
-	PROTEIN CSF/URINE	In very rare cases, gammopathy, in particular type 1gw (waldenström sind and and and a sind and a sind and a sind and a sind a sin
37		Urea. No significant meretence nom urea up to a concentration of 1000 mmore (1909 mg/dL).
		Progs. To incrite was found at the date to the fination is using common using product on the product of the date of the product of the date of the product of the date of the
		The prime as observed as the prime as a second seco
		High levels of homogentisic acid can be found in urine of patients with the rare genetic disorder Alkaptonuria. Homogentisic acid in urine samples at concentrations > 0.6 mmol/L can cause fake results
		The administration of gelatin-based plasma replacements can lead to increased urine protein values
		Drugs: No interference was found at therapeutic concentrations using common drug panels.
		Exception: Oxytetracycline causes artificially high UIBC values at the tested drug level.
		Pathologically high levels of albumin (7 g/dL) decrease the apparent UIBC value significantly.
		If the patient's serum iron exceeds the binding capacity of the transferrin, a negative UIBC value will result.
38	UIBC	In patients treated with iron supplements or metal-binding drugs, the drug-bound iron may not properly react in the test, resulting in falsely low values.
		The physiological function of deferoxamine containing drugs is to bind iron to facilitate its elimination from the body. Therefore any deferoxamine concentration interferes with the UIBC assay.
		In the presence of high ferritin concentrations > 1200 µg/L the assumption that serum iron is almost completely bound to transferrin is not valid anymore. Therefore, such iron results should not be used to calculate Total Iron Binding Capacity
		(11BC) or percent transferms saturation (% SA1)
		In very rare cases, gammopathy, in particular type 1gM (wadenström sin matroglooulimma), may cause unreliable results.
	URIC ACID	Ascorole acti, ivo signineant interference interference in accordent action due name Execution (action do action accordent action
		Drugs, two interference was found at uncapeture concentrations using common using particles. Calculate doces and causes articlearly low use activities and results.
		Divence fraces specification in the task of the particle concentrations and the divertex of the task of task of the task of the task of task o
39		Decline (Limite) at the querie concentrations may read to make for results 20
		Acetaminophen intoxications are frequently treated with N-acetylcysteine. N-Acetylcysteine at the therapeutic concentration when used as an antidote and the acetaminophen metabolite N-acetyl-p-benzoquinone imine (NAPQI) independently
		may cause falsely low results
		Venipuncture should be performed prior to the administration of Metamizole. Venipuncture immediately after or during the administration of Metamizole may lead to falsely low results.
		In very rare cases, gammopathy, in particular type IgM (Waldenström's macroglobulinemia), may cause unreliable results
40	C3	Rheumatoid factors: No significant interference from rheumatoid factors up to a concentration of 1200 IU/mL.
		High-dose hook effect: No false result occurs up to a C3c concentration of 12.5 g/L
		Drugs: No interference was found at therapeutic concentrations using common drug panels.
		In very rare cases, gammopathy, in particular type IgM (Waldenström's macroglobulinemia), may cause unreliable results.
41	C4	Rheumatoid factors: No significant interference from rheumatoid factors up to a concentration of 600 IU/mL.
		High dose hook-effect: No false result occurs up to a C4 concentration of 5 g/L (25 µmol/L, 500 mg/dL).
		Drugs: No interference was found at therapeutic concentrations using common drug panels.
1		In very rare cases, gammopathy, in particular type IgM (Waldenström's macroglobulinemia), may cause unreliable results.