Hydration Assessment

It is often relatively easy to demonstrate that a patient is currently dehydrated or hydrated. However, it is often difficult to declare with objective evidence that while the patient is dehydrated today, he/she was not dehydrated at their last healthcare encounter.

The **Hydration Assessment** tool is designed to enable you to objectively establish the patient's state of hydration and to document that in an objective, supportable way. This tool is particularly important to use in the Nursing Home setting as the patient's state of hydration is an important aspect of long-term residential care and is often the focus of malpractice actions.

The Hydration Assessment Template can be launched from:

SETMA's LESS Initiative I Preventing Diabetes I Charge Posting Tutorial (CD-9 Code Tutor Master GP I Nursing Home I Ophthalmology Per Daity Progress Admission Orders I Discharge I Ins Exercise I CHF Exercise I Diabetic Exercise I Hydration I Nutrition I Quidelines Disease Mana Acute Coronary Syn I Angina I Asthma CHF I Diabetes I He Viewint Management I Rena Patient's Pharmacy Pending Referrals I Status Priority Refe Completed Routine Test	Preventing Hypertension ial ESM Coding Record districs Physical Thera ulin Infusion Colorectal S I Drug Interactions I I Lab Enture I La gement adaches Hypertension I Faiture Diabetes Edu	n I Mer rimendations aov Podiatry R Surgery Pain Mar Smoking Cessati ab Results I 1 Lipids I Car 1	dical Home Coordination Reeds Attention? heumatology nagement I on I roliometabolic Risk Syndrome I
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atient's Pharmacy Pending Referrals I Status Phone Completed Routine Test	mal Referring P		
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hone () - Completed Routine Test		Provider	Chart Note
INTRO 1 V	Abbas		Return Info
x () ·			Return Doc
Ry Sheet - Artive			Email
Ry Sheet - New			Telephone
Ry Sheet - Complete			Records Request
		2	Transfer of Care Doc
Home Health Archived Referrals - Do not use for	or new referrals	Referral History	
Status Priority Refer	Referring Pr		
	retening c	Provider	

• AAA Home

- SETMA Navigation Bar on Patient Data Master
- SETMA Navigation Bar on Nursing Home Templates
- Acute Renal Template in the Renal Failure Suite of Templates

The Hydration Assessment Templates will guide you in objectively documenting the following:

- Increased Risk of Dehydration
- Physical Evidence of Dehydration
- Metabolic and Chemical Analysis of Hydration

The contents of the Hydration Assessment Tool

The Hydration template is organized into a top section, a middle section and a bottom section. At the top of the Hydration template, there is a function whereby you can document where the tool was used: clinic, nursing home, hospital, hospital discharge.

creased Risk of Dehydration	Physic	al Evidence of I	ehydration)		Home
1 Recent Intection					Print
Febrile	Buc	ccal Mucosa			
Temp					Help Documents
Recent Weight Loss	Г	Urine Output < 30	cc/hr		Degree of Dehydration
Impaction Decreased Appetite					Electrolytes and Osmolarity
Change in Mental Status	Orti	hostatics	Pulse	_	Ethical Issues about Hydratic
Paralysis	_	_/		Lying	Factors Affecting Creat, BU
Diabetes Melitus		_/	-	Sitting	Fluid Requirements
On Diuretics				Standing	Osmolality Norms
Age over 60		Drop greate	er than 20 mmHg	9	Osmolality Theory
Nursing Home Resident		i biopicas u	an zo mining		Renal Physiology and Hydrati
Nausea w/vomitting					Signs of Dehydration
Diarrhea Diarrhea Unable to turn and position					
Metabolic & Chemical Analysis	of Hydration		Calcul	late	2
Urine Specific Gravity	BUN		Serum Os	molality	
Glucose	Creatinine		Serum Osr	molarity	
Sodium	BUN/Creat Ratio	Info	Anion	Gap	
Potassium	Charle for blav	utabal Info	Osmolar	Gap	- (.
Chloride	Laboratory	Dates	Est. Creat C	learance	
				and a second	

The top section of the template is organized into three columns:

Column 1:

Increased Risk of Dehydration

This provides opportunity for demonstrating that the patient has conditions which place him/her at higher risk of dehydration. These are:

- Recent Infection
- Febrile
- Recent Weight Loss
- Impaction
- Decreased Appetite
- Change in Mental Status
- Paralysis
- Inability to Feed Self
- Diabetes Mellitus
- Hypoalbuminemia
- Age over 60
- Nursing Home Resident
- Nausea
- Nausea with vomiting
- Diarrhea
- Unable to turn and position

Some of these risk factors will be auto checked, as some of the elements of hydration risk are captured elsewhere in the medical record. For instance, the patient's temperature is captured automatically, as is whether the patient has Diabetes Mellitus or not, as is the patient's age, as is whether the patient is a Nursing Home Resident.

Note: It should always be remembered that just because a person has risk factors for dehydration does not mean that they are dehydrated; it only means that they have an increased risk of becoming dehydrated.

Depending on the number of factors, and the particular risks factors which are present for dehydration, the patient will be designated as:

- Patient has a high risk for dehydration
- Patient has a severe risk for dehydration

The only risk factors which will by itself place a patient at "high risk for dehydration" is a temperature of 103 or above. If a patient has a temperature of 102 or less, an additional risk factor such as being on a diuretic is required before the patient is at a higher risk of becoming dehydrated. Typically, it will require four risk factors or more to make a patient at "severe risk for dehydration."

Recent Infection	Physical Ev Skin Turg	idence of Dehy gor	dration		Hom	e
					Print	
Febrile Temp 102.00	Buccal M	lucosa			Help Docu	ments
Recent Weight Loss	🗖 Urine	Output < 30 cc/ł	nr		Degree of De	shydration
Impaction Decreased Annetite					Electrolytes and	d Osmolarity
Change in Mental Status	Orthosta	tics	Pulse		Ethical Issues ab	out Hydration
Paralysis		/	Lyi	ng	Factors Affectin	g Creat, BUN
Diabetes Melitus		/	Sitt	ting	Fluid Requi	rements
On Diuretics	J	1	Sta	anding	Osmolality	Norms
Age over 60		Drop greater the	in 20 mmHg		Osmolality	Theory
Nursing Home Resident		Drop less than 2	to mining		Renal Physiology	and Hydration
Nausea w/vomitting Diarrhea	Patient has a hig	ıh risk for dehy	dration.		Signs of Del	hydration
Unable to turn and position						
letabolic & Chemical Analysis of	Hydration		Calculate			
Urine Specific Gravity	BUN	_	Serum Osmolai			
Glucose	Creatinine	_	Serum Osmolar	ty	-	
Sodium	BUN/Creat Ratio	Info	Anion Gap			
Potassium	Check for New Lab	s Info	Osmolar Gap			
HCO	Laboratory Dates		st. Creat Cleara	nce		

Column 2:

Physical Evidence of Dehydration

Skin Turgor - there is a box to document the patient's skin turgor with a pick list of "fair," "good," and "tenting."

Buccal Mucosa - there is a box to document the patient's moisture content of the bucal mucosa with a pick list of: "moist," and "dry."

Urine Output - there is a box to check if the patient's urine volume is less than 30cc an hour. **Orthostatics** - there are boxes to document the blood pressure and pulse for lying, sitting and standing. Beneath these boxes are two check boxes: one to document a drop of greater than 20 mm Hg and another to document a drop of less than 20 mm Hg.

creased Risk of Dehydration	Physical Et	vidence of Del	hydration		Home
Recent Infection	Skin Tur	gor	2		nome
					Print
Febrile	Buccal M	Aucosa			
Temp 102.00					Help Documents
Recent Weight Loss	🗌 Urine	e Output < 30 co	c/hr		Degree of Dehydration
Decreased Appetite		97 			Electrolytes and Osmolarity
Change in Mental Status	Orthoste	itics	Pulse		Ethical Issues about Hydration
Paralysis				ying	Factors Affecting Creat, BUN
Diabetes Melitus		-/	S S S S S S S S S S S S S S S S S S S	litting	Fluid Requirements
V On Diuretics		1	l s	anding	Osmolality Norms
Age over 60		Drop greater t	nan 20 mmHg 20 mmHg		Osmolality Theory
Nursing Home Resident		Di op ioss ti idi	1 20 milling		Renal Physiology and Hydration
Nausea w/vomitting					Signs of Dehydration
Diarrhea Unable to turn and position	Patient has a hij	jh risk for del	hydration.		
etabolic & Chemical Analysis	s of Hydration		Calculate		*
Urine Specific Gravity	BIN	- P	Serum Osmol	ality	
Glucose	Creatinine	1	Serum Osmola	arity	
Sodium	BUN/Creat Ratio	Info	Anion Gap		-
Potassium		Info	Osmolar Ga	qu	-
Chloride	Check for New Las	<u>s</u>	Est. Creat Clear	ance	-
1100	Laboratory Dates	101			

Column 3:

There are two buttons:

Home - a navigation button which carries you back to the AAA Home

Print - a button which generates a document for the Hydration Assessment which can be placed on the patient's hospital or nursing home record. The information on the Hydration Assessment Template automatically prints on the PDM chart note, on the Nursing Home chart note and on the discharge summary note.

Help Documents entitled:

- Degree of Dehydration
- Electrolytes and Osmolarity
- Ethical issues about Hydration
- Factors affecting Creatinine and BUN
- Fluid Requirements
- Osmolality Norms
- Osmolality Theory
- Renal Physiology and Hydration

• Signs of Dehydration

Increased Risk of Dehydration	Physical Evic	lence of Dehydration		Home
				Print
Febrile	Buccal Mu	cosa		Heln Documents
Recent Weight Loss	E used			Degree of Dehydration
Impaction	1 Unne (Jutput « 30 cc/nr		Electrolytes and Osmolarity
Change in Mental Status	Orthostatio	s Pulse		Ethical Issues about Hydration
Paralysis		/Lyi	ng	Factors Affecting Creat, BUN
Diabetes Melitus		/ Sitt	ing	Fluid Requirements
On Diuretics		/ Ste	inding	Osmolality Norms
Age over 60		Prop greater than 20 mmHg		Osmolality Theory
Nursing Home Resident	1_1	rop less than 20 mmrg		Renal Physiology and Hydration
Nausea w/vomitting Diarrhea Unable to turn and position	Patient has a high	risk for dehydration.		Signs of Dehydration
letabolic & Chemical Analysis	of Hydration	Calculate		
Urine Specific Gravity	BUN	Serum Osmolali	ty	
Glucose	Creatinine	Serum Osmolari	ty	
Sodium	BUN/Creat Ratio	Info Anion Gap		-
Potassium	Check for New Lehe	Info Osmolar Gap		
Chloride HCO ₃	Laboratory Dates	Est. Creat Cleara	nce	
Chloride HCO ₃ Hydration Status Celculate	C Good C Mar C Adequate C Deh	ginal Hydration Orde	nce .	

The middle section of the Hydration Assessment addresses the

Metabolic and Chemical Analysis of Hydration

Recent Infection	Physical Evid Skip Turgor	ence of Dehydrati	on	Home
				Print
Febrile	Buccal Muc	058	-	Help Documente
Recent Weight Loss		utruit < 30 codor		Degree of Dehydration
Impaction	1 0110 0			Electrolytes and Osmolarity
Change in Mental Status	Orthostatic	s Puls	e	Ethical Issues about Hydration
Paralysis			Lying	Factors Affecting Creat, BUN
Diabetes Mellitus		′	Sitting	Fluid Requirements
On Diuretics			Standing	Osmolality Norms
Age over 60		rop greater than 20 r	nmHg Ha	Osmolality Theory
Nursing Home Resident	1_0	op iess triair zo nini	ny	Renal Physiology and Hydration
Nausea w/vomitting Diarrhea Unable to turn and position	Patient has a high	risk for dehydrati	on.	Signs of Dehydration
tabolic & Chemical Analysis	of Hydration	с	alculate	
Urine Specific Gravity	BUN	Serur	n Osmolality	
Glucose	Creatinine	Serun	n Osmolarity	_
Sodium	BUN/Creat Ratio	Info Ar	nion Gap	_
Potassium	Check for New Labs	Info Osr	molar Gap	_
Chloride	Laboratory Dates	Est. Cre	eat Clearance	

In this section, the following laboratory values are automatically drawn from the laboratory module in NextGen or absent that data, you can manually enter the data from another source. Those lab elements are:

- Urine Specific Gravity
- Glucose
- Sodium
- Potassium
- Chloride
- HCO3
- BUN
- Creatinine
- BUN/Creatinine Ratio

Hyd Setting	Clinic C Nursing Home Hospital C Hospital Disch	ent _{arge}			
Increased Risk of Dehydration	Physical Evide	ence of Deh	ydration		Home
Recent Infection	Skin Turgor		0		Print
Febrie Temp 102.00	Buccal Muc	osa	_		Help Documents
Recent Weight Loss	Urine O	tput < 30 cci	hr		Degree of Dehydration
Impaction Decreased Annelite					Electrolytes and Osmolarity
Change in Mental Status	Orthostatics	·	Pulse		Ethical Issues about Hydration
Paralysis				ring	Factors Affecting Creat, BUN
Diabetes Melitus	· · · · · · · · · · · · · · · · · · ·		s	tting	Fluid Requirements
On Diuretics		1	l s	anding	Osmolality Norms
Age over 60		op greater th	an 20 mmHg		Osmolality Theory
Nursing Home Resident	1 0	op iess man	20 mming		Renal Physiology and Hydration
Nausea w/vomitting	Patient has a high i	risk for deh	ydration.		Signs of Dehydration
letabolic & Chemical Analysis of	Hydration		Calculate		*
Urine Specific Gravity	BUN		Serum Osmola	lity	
Glucose	Creatinine		Serum Osmola	rity	
Sodium	BUN/Creat Ratio	Info	Anion Gap		
Potassium	Check for New Lebe	Info	Osmolar Ga	P	
HCO3	Laboratory Dates	I	Est. Creat Clear	ance	_
ydration Status					1. A.
Calculate	C Good C Margi C Adequate C Dehy	drated _	Hydration Ord	ers	

Beneath the BUN/Creatinine Ratio are two buttons:

• **Check for New Labs** – this checks the NextGen Lab Module for newer laboratory data to make sure that you are evaluating the patient's hydration with the most recent data.

Setting	C Hospital C Hospital Di	me scharge			
Increased Risk of Dehydration	Physical Ev	ridence of Dehy	dration		Home
Recent Infection	Skin Turi	gor	_		Print
Febrile	Buccal N	lucosa	_		Help Documents
Recent Weight Loss	E Urine	Output < 30 cc/h	r		Degree of Dehydration
Impaction					Electrolytes and Osmolarity
Change in Mental Status	Orthosta	tics	Pulse		Ethical Issues about Hydration
Paralysis		/	Lying		Factors Affecting Creat, BUN
Diabetes Melitus			Sitting)	Fluid Requirements
On Diuretics	1		Stand	ling	Osmolality Norms
Age over 60	-	Drop greater that	n 20 mmHg		Osmolality Theory
Nursing Home Resident		Drop less than 2	u mmrig		Renal Physiology and Hydration
Nausea w/vomitting Diarrhea Unable to turn and position	Patient has a hig	jh risk for dehy	dration.		Signs of Dehydration
Metabolic & Chemical Analysis of	f Hydration		Calculate	· · · ·	
Urine Specific Gravity	BUN		Serum Osmolality		
Glucose	Creatinine		Serum Osmolarity		
Sodium	BUN/Creat Ratio	Info	Anion Gap		
Potassium	Check for New Lak	Info	Osmolar Gap		
Chloride	Laboratory Dates	Es	t. Creat Clearanc	e	
HCO3				_	
ydration Status	- C C				
Calculate	C Adamusta C D	Arginal H	ydration Orders		

• **Laboratory Dates** – this launches a pop-up which will give you the dates on which each of the above laboratory tests were performed.

creased Risk of Dehydratio	n Physical Evidence of Dehydration Skin Turgor		Home
	_		Print
Febrile	abs	×	Help Documents
Recent W/			Degree of Dehydration
	Laboratory Collection Dates		Electrolytes and Osmolarity
Change in			Ethical Issues about Hydration
Paralysis	Chrosen II		Factors Affecting Creat, BUN
Diabetes N	Sodam 11		Fluid Requirements
On Diuretic	Dotaccium //		Osmolality Norms
Age over t			Osmolality Theory
Nursing Ho			Renal Physiology and Hydratio
Nausea w	PEN 11		Signs of Dehydration
Diarrhea	Creatinine 11		
etabolic & Che		· · ·	
Urine Specifi	OK Cancel		
Glucose			
Sodium			
Potassium	Check for New Labs Info Osmolar Gap		
Chloride	Laboratory Dates Est. Creat Clearand	:e	
HCO ₃			

Beside the laboratory values, in the third column of this second section of the Hydration Assessment template are five buttons which **automatically calculates and display information about the patient's state of hydration**:

• Serum Osmolality

Hyc Setting	Clinic Nursing Home Hospital Hospital Dischar	nt ^{rge}					
Increased Risk of Dehydration	Physical Eviden	ice of De	hydration				Home
I Recent Infection	Skin Turgor						Print
Febrile	Buccal Mucos	8	_			Help	Documents
Recent Weight Loss	Likine Outr	w# < 30 c	chr			Degree	of Dehydration
Impaction	i onio odg	Jul - 50 C	500 H			Electrolyte	s and Osmolarity
Change in Mental Status	Orthostatics		Pulse	-		Ethical Issu	es about Hydration
Paralysis	/			Lying		Factors Af	fecting Creat, BUN
Diabetes Melitus	/			Sitting		Fluid F	Requirements
On Diuretics Hyposite minemia				Standing	3	Osme	plality Norms
Age over 60	Drop	o greater i	than 20 mmH	9		Osmo	lality Theory
Nursing Home Resident	1 0101	J 1655 LI 10	it 20 mining			Renal Physic	logy and Hydration
Nausea w/vomitting Diarrhea Unable to turn and position	Patient has a high ris	sk for de	hydration.			Signs	of Dehydration
letabolic & Chemical Analysis of	Hydration		Calcul	ate			
Urine Specific Gravity	BLIN		Serum Os	molality	284.0	Normal	
Glucose	Creatinine		Serum Osi	nolarity			
Sodium	BUN/Creat Ratio	Info	Anion	Gap			
Potassium	(Annual Annual Annua	Info	Osmolar	Gap		-	
Chloride HCO	Laboratory Dates		Est. Creat C	learance			

• Serum Osmolarity

Hy Setting	Clinic Chursing Home Hospital Chospital Discha	nt ^{rge}			
Increased Risk of Dehydration	Physical Evider	nce of Dehyd	ration		Home
Recent Intection	Skin Turgor		_		Print
Febrile	Buccal Muco	sa	_		Help Documents
Recent Weight Loss	E the out	nut - 20 co.tu			Degree of Dehydration
Impaction	1 Onne Out	put < 30 cc/nr			Electrolytes and Osmolarity
Change in Mental Status	Orthostatics		Pulse		Ethical Issues about Hydration
Paralysis Inability to Feed Self	1		Lying		Factors Affecting Creat, BUN
Diabetes Melitus			Stting		Fluid Requirements
Hypoalburninemia			Standin	9	Osmolality Norms
Age over 60	I Dro	p greater than n less than 20	20 mmHg		Osmolality Theory
Nursing Home Resident	1 00	p 1655 trideri 20	mang		Renal Physiology and Hydration
☐ Nausea w/vomitting ☐ Diarrhea ☐ Unable to turn and position	Patient has a high ri	sk for dehyd	ration.		Signs of Dehydration
Metabolic & Chemical Analysis o	f Hydration		Calculate	•	
Urine Specific Gravity	BUN	5	erum Osmolality	284.0	Hormal
Glucose	Creatinine	S	erum Osmolarity	277.0	Abnormal
Sodium	BUN/Creat Ratio	Info	Anion Gap		
Potassium	Check for New Labs	Info	Osmolar Gap		-
Chloride HCO	Laboratory Dates	Est	. Creat Clearance		_
Hydration Status					
Calculate	Good C Margin	al Hy	dration Orders		

• Anion Gap – there is a help button next to this function which is entitled "Info," this gives details of the value and interpretation of the Anion Gap.

	Hy c Setting	Clinic CNursing Hon Hospital C Hospital Disc	nent _{ne} charge	5 110-110		
Increa	sed Risk of Dehydration	Physical Evi	dence of De	hydration		Home
	Recent Infection	Skin Turgi	or			Print
•	Febrile	Buccal M	ucosa			
	Temp 102.00					Help Documents
	Recent Weight Loss	Urine	Output < 30 c	c/hr		Degree of Dehydration
	Impaction Decreased Annetite					Electrolytes and Osmolarity
	Change in Mental Status	Orthostati	ics	Pulse		Ethical Issues about Hydration
E	Paralysis Inability to Feed Self			Lying		Factors Affecting Creat, BUN
	Diabetes Mellitus		4	Sitting		Fluid Requirements
ř	On Diuretics Hynoalhuminemia		11	Standir	ng	Osmolality Norms
E	Age over 60	-	Drop greater t	han 20 mmHg		Osmolality Theory
	Nursing Home Resident		propliess that	1 20 mining		Renal Physiology and Hydration
	Nausea w/vomitting					Signs of Dehydration
E	Diarrhea Unable to turn and position	Patient has a high	h fisk for de	hydration.		
Matab	olic & Chemical Analysis of	Hudration		Calculate		
Ur	ine Specific Gravity	BIN	_	Serum Osmolality	284.0	Hormal
GI	ucose	Creatinine		Serum Osmolarity	277.0	Abnormal
So	odium	BUN/Creat Ratio	Info	Anion Gap		
Po	tassium	Charle day May 1 also	Info	Osmolar Gap		
Ch	nloride	Laboratory Dates		Est. Creat Clearance		-
HC	00 ₃	Uddordrory Dates	-		1	
Hydrat	ion Status	. C. C. M.	and the second second			
	Calculate	CAdequate C Det	rginal wdrated	Hydration Orders		

• **Osmolar Gap** – this button launches a pop-up which calculates the Osmolar Gap. This calculation requires you to add a value to the pop-up for the measured Serum Osmolarity. The "info" button by the Osmolar Gap button gives information about the interpretation and use of the Osmolar Gap.

Recent Infection	Skin Turgor	Physical Evidence of Dehydration		Home
				Print
Febrile	Buccal Mucosa			2010 22
Temp 102.00	an Carr	×	if.	Help Documents
Recent Weight Los	ar Gap			Degree of Dehydration
Impaction Decreased Appetit	Osmolar Gap			Electrolytes and Osmolarity
Change in Mental S				Ethical Issues about Hydration
Paralysis	Calculated Osmolality 284.0			Factors Affecting Creat, BUN
Diabetes Mellitus				Fluid Requirements
Violation Providentia	Measured Osmolarity			Osmolality Norms
Age over 60				Osmolality Theory
Nursing Home Resi	Calculate -284.0 Hit	jh		Renal Physiology and Hydration
Nausea w/vomitting				Signs of Dehydration
Unable to turn and i				
letabolic & Chemical A	OK Cancel	1		
Urine Specific Gravity		_	284.0	Normal
Glucose	Creatinine	Serum Osmolarity	277.0	Abnormal
Sodium	BUN/Creat Ratio	o Anion Gap		
Potassium	Info	o Osmolar Gap	-284.0	High
Chloride	Check for New Labs	Est. Creat Clearance	-	
HCO	Laboratory Dates			

• Est Creatinine Clearance – this button launches a pop-up calculates the estimate glomerular filtration rate based on the patient's weight, sex, age and serum creatinine. These data are pulled over automatically. To have this estimate calculate, you must click the "calculate" button on the pop-up.

	Hospital (Hospital Discharge		
Recent Infection	Physical Evidence of Dehydration Skin Turgor		Home
			Print
Febrile	Buccal Mucosa	_	
Temp 102.00	reat Clearance	×	Help Documents
Recent Weight Loss			Degree of Dehydration
Impaction		Electrolytes and Osmolarity	
Change in Mental Status		Ethical Issues about Hydration	
Paralysis	Paralysis		
Diabetes Melitus Veignt Image: set of the se	vveignt j ios		Fluid Requirements
	Sex M (must be uppercase)		Osmolality Norms
		Osmolality Theory	
Nursing Home Resident	Serum Creatinine		Renal Physiology and Hydratio
Nausea w/vomitting			Signs of Debydration
Diarrhea	Calculate >>> mL/min		
letabolic & Chemical Analysis of			
Urine Specific Gravity			Hormal
Glucose	OK Cancel		Abnormal
Sodium			
Potassium	Info Osmolar Gap -284	.0	High
Chloride	Check for New Labs	-	1
HCO3	Laboratory Dates	-	
dration Status		3	
Calculate	Good C Marginal Hydration Orders		

Note: This calculation is the same and the resulting value is the same as the Cockcroft-Gault, which is one of five estimation-of-glomerular-filtration-equations which are displayed on SETMA's Renal Failure Suite of Templates (See the bottom line of the AAA Home).

The bottom section of the Hydration Assessment Template addresses the patient's

Setting	C Hospital C Hospital Dis	me scharge	1.00			
Recent Infection	Physical Evidence of Dehydration				Home	
	Skilling	<i>5</i> .4			Print	
Febrile	Buccal Mucosa		_		Help Documents Degree of Dehydration	
Recent Weight Loss			hr			
Impaction					Electrolytes and Osmolarity	
Change in Mental Status	Orthosta	tics	Pulse		Ethical Issues about Hydration	
Paralysis			Lying		Factors Affecting Creat, BUN	
Diabetes Melitus		1	Sitting		Fluid Requirements	
On Diuretics		1	Standin	g	Osmolality Norms	
Age over 60	Drop greater than 20 mmHg Drop less than 20 mmHg			Osmolality Theory		
Nursing Home Resident				Renal Physiology and Hydration		
Nausea w/vomitting Diarrhea Unable to turn and position	Patient has a high risk for dehydration.		ydration.		Signs of Dehydration	
latabolic & Chemical Analysis (f Hudration		Calculate			
Urine Specific Gravity	BLN		Serum Osmolality	284.0	Hormal	
Glucose	Creatinine		Serum Osmolarity	277.0	Abnormal	
Sodium	BUN/Creat Ratio	Info	Anion Gap			
Potassium	Check for Nous Lek	nt Info	Osmolar Gap	-284.0	High	
Chloride	Laboratory Dates		st. Creat Clearance)			
1003	-12					
Calculate	Good C Ma C Adequate C De	arginal hydrated	Hydration Orders	1		

Hydration Status

Using the information in the

- Increased Risk of Dehydration
- Physical Evidence of Dehydration
- Metabolic and Chemical Analysis of Hydration

When you click on the "Calculate" button in this bottom section, the algorithm which is built into this template determines that the patient's state of hydration is:

- Good
- Adequate
- Marginal
- Dehydrated

ncreased Risk of Dehydration	Physical Evid	lence of Deh	ydration		Home
Recent Infection	Skin Turgo	r			Print
Febrile	l Buccal Mu	cosa			Pint
Temp 102.00					Help Documents
Recent Weight Loss	Urine Output < 30 cc/hr		hr		Degree of Dehydration
Decreased Appetite	Orthostatic	\$	Dulea		Electrolytes and Osmolarity
Change in Mental Status			Lving		Ethical Issues about Hydration
Inability to Feed Self			Sitting		Factors Affecting Creat, BUN
Diabetes Mellitus	<u> </u>		Standin		Fluid Requirements
Hypoalburninemia	j /j j Standing				Osmolality Norms
Age over 60	Drop greater than 20 mmHg			Osmolality Theory	
Nursing Home Resident				Renal Physiology and Hydration	
Nausea w/vomitting	Dation loss a bigh	rich for dals	and a strength of the strength		Signs of Dehydration
Diarrhea Unable to turn and position	Paueni nas a nign	TISK for den	yaradon.		
letabolic & Chemical Analysis o	f Hydration		Calculate		
Urine Specific Gravity	BUN		Serum Osmolality	284.0	Normal
Glucose	Creatinine		Serum Osmolarity	277.0	Abnormal
Sodium	BUN/Creat Ratio	Info	Anion Gap		
Potassium	Check for blow Labo	Info	Osmolar Gap	-284.0	High
Chloride	Laboratory Dates	1	Est. Creat Clearance	1	-
HCO3				100	

At this point, it is possible to click on the Hydration Orders button which will launch a pop-up which will automatically indicate appropriate actions to prevent dehydration and/or to correct it if it is already present.

These orders will print on the hydration assessment note and then can be placed in the order section of the clinic, hospital or nursing home.

When the hydration template is completed, it provides an objective and comprehensive documentation of the patient's state of hydration on the date of the present evaluation.

1	Hydration Orders	×
Se Increased Risk of Dehydrati Recent Infection Febrile Temp 102.00 Recent Weight Loss Impaction Decreased Appetite Change in Mental Status Paralysis Inability to Feed Self Diabetes Melitus On Diuretics Hypoalbuminemia Age over 60 Nursing Home Resident Nausea Nausea w/vomitting Diarrhea Unable to turn and positi Metabolic & Chemical Analy Urine Specific Gravity Glucose	Hydration Orders Hydration Orders Monthly BMP Monthly Urinalysis Monthly Serun Osmolality Calculation Monthly Serun Osmolality Calculation Monthly Buccal Mucosa Moisture Eval I and O q shitt I and O q shitt Monthly Buccal Mucosa Moisture Eval I and O q shitt I and O q shitt Monthly Buccal Mucosa Moisture Eval I and O q shitt I and O q shitt Monthly Buccal Mucosa Moisture Eval I and O q shitt I and O q shitt Monthly Buccal Mucosa Moisture Eval I and O q shitt Monthly Buccal Mucosa Moisture Eval I and O q shitt Monthly Buccal Mucosa Moisture Eval I and O q shitt Monthly Character (if resident buccal to a least 1000cch free fluids daily Monthly Evaluation fung sounds q shitt and report change Consult SETMA Nerphrologist If The allows IV therapy, Start IV If NA is below 130, start D5 NS at 100 cc/hr for 3 hours and then reduce to 80 cc/hr for a total of 4,000 cc and reassess If NA is below 130, start D5 NZ at 100 cc/hr for three hours and then reduce to 80 cc/hr for a total of 4,000 cc and reas	×
Sodium Potassium Chloride C	If NH does not allow IV therapy, transfer to Memorial Hermann Baptist Hospital OK Cancel	
Hydration Status	0 C Good C Marginal Hydration Orders	

Print

Once the template has been completed, the "Print" button should be launched. This will create an independent Hydration Assessment document which can be placed on the patient's hospital or nursing home note. The data will also be placed automatically on the clinic, nursing home and discharge notes.