To the eMERGE Team:

This glossary of terms was created by Dr. William Barbaresi of Boston Children's Hospital and Dr. Slavika Katusic of the Mayo Clinic. Drs. Barbaresi and Katusic have kindly agreed to allow the eMERGE Project to utilize this glossary, and they will be included as investigators in the project. However, this document is to be used only for the eMERGE project. It is not be duplicated except as required for use by staff in the eMERGE project or to be shared outside of the eMERGE network without written permission from the authors.

Thank you!

Dictionary for Autism/PDD DSM-IV PROBLEMS

CODE	I. Social Interaction Criteria	
1.0	A. Marked impairment in the use of multiple non-verbal behaviors to regulate social interaction	
1.1	Fair eye contact:	moderate eye contact eye contact fair eye contact less than optimal eye contact is present about ½ of time
1.2	Inconsistent eye contact	sometimes making poor eye contact intermittent eye contact made intermittent eye contact occasional brief eye contact inconsistent eye contact prefers to look at people out of corner of eye eye contact was variable
1.3	Diminished eye contact	eye contact mildly diminished eye contact moderately reduced decreased eye contact diminished eye contact with examiner
1.4	Marginal, limited eye contact	eye contact of marginal quality limited eye contact little eye contact makes little eye contact
1.5	Eye contact is fleeting, difficult to obtain	eye contact fleeting looked at me only fleetingly he only provides a fleeting eye contact eye contact only fleetingly achieved eye contact difficult to obtain, tended to be fleeting eye contact abnormal eye contact is present only sporadically; exhibits social smile only sporadically eye contact was marginal, usually fleeting, typified by lack of social acknowledgment difficult to obtain or maintain eye contact difficult to maintain eye contact eye contact very difficult

1.6	Rarely makes	rarely maintained eye contact rarely makes eye contact
1.0	eye contact	rarely establishes eye contact
1.7	Does not initiate	he did not initiate eye contact
1.7	eye contact	did not initiate any eye contact
		avoided eye contact
	Avoids eye	avoided direct gaze
1.8		avoiding any eye contact
	contact	assiduously avoided any eye contact
		he avoided eye contact with examiner
		facial expressions constricted, and eye contact
		trouble making eye contact minimal eye contact
		impairment in eye-to-eye gaze
		does not make good eye contact
1.0	Very limited eye	did not establish good eye contact
1.9	contact	did not sustain eye contact
		very little eye contact
		very little eye contact with others
		very limited eye contact
		makes very little eye contact makes scarce eye contact
		makes scurce eye contact
1.10	Poor eye contact	poor eye contact
1.10	1 oor cyc contact	shows poor eye contact
		very poor eye contact
1.11	Very poor eye contact	eye contact very poor
1.11		makes very poor eye contact
		eye contact is virtually nil
		eye contact observed 3 times during 45 minute interview
		never looks you in the eye
		does not establish eye contact
	Ma au a a au trat	eye contact never established
1.12	No eye contact	lack of eye contact
	whatsoever	he did not provide any eye contact
		no eye contact with examiner
		no eye contact
	/	eye contact non-existent
)		flat facial expression
1.13	Lack of facial	facial expression is lacking for any social interchange
	expression	no indication of affect in his face
1.14	Poor non-verbal communication	non-verbal social skills are poor
		abnormal non-verbal communication no systematic, interactive non-verbal communication
		does not use body posture to communicate
		does not use gestures to communicate
L		and the Beautiful of Communitation

	B. Failure to	o develop peer relationships appropriate to
2.0	developm	ental level
	Inconsistentl	y participates in group activities
2.1	Plays alone	will not play with others plays alone doesn't play with anyone plays by himself solitary in his play he only plays by himself plays for long periods by himself
2.2	Prefers playing alone	Prefers to play alone likes to play by himself most of time he plays by himself usually plays alone
2.3	Does not play with other children	does not play with other children does not play with others never playing with other children not playing interactively inability to play with other children won't play with other kids zero interactive play no clear history of interactive play with other children does not engage in reciprocal play doesn't play games with family members or friends no interest in playing with others uninterested in playing with other children no effort to initiate play with other children does not usually play with other children only rarely likes to play with other children she does not engage in interactive play with other children easily he engages in little cooperative play little in the way of social interactive play does not engage or play with other children normally difficulty playing with peers, particularly in terms of both initiating and maintaining contact engages in no definite social play with age mates no effort to initiate play with other children did not participate in any turn taking activities
2.4	Avoids play with others	Avoidant of mutual play Avoids play with his peers
2.5	Parallel play	Parallel play Parallel play only Prefers parallel play
2.6	Not interested in interacting with peers	no interest in peers not interested in interacting with other children uninterested in interacting with family or other children does not show any interest in peer relations

2.7	Socially isolated	Socially isolated Socially, he isolates himself isolative behavior
2.8	"loner", no close friends	Loner "loner" "loner at school" always been a loner parents describe him as a loner socially, he is a loner pretty much a loner no friends no friends in his peer group prefers isolated / autonomous activities; no close friends has made few if any friends
2.9	Generally impaired or limited social interaction with other children	Decreased interaction with other children does not interact much with other children doesn't have much interaction with children limited in interactions with other children minimal interaction with peers impairment of peer relationships does not have good peer relationships history of failure to develop peer relationships does not mix with other children has great difficulty interacting with other children does not engage or play with other children normally lacks socialization skills with other children very limited in the quality of social interaction with other children poor social skills or interest in social interaction with peers has friends, but is socially inept differently interacting with other children continues to manifest atypicalities in interactional style and language pattern
2.10	Doesn't seek interactions with other children	has to be drawn into interactions with other children peer interactions are directed by other children does not seek out contact with other children
2.11	Enjoys observing other children, but does not participate	likes to be around children, doesn't play with them observes other children rather than join in mostly watches other children watches children, but doesn't participate seems to want to be in the same room as other children, but is not actively involved in their activity
2.12	Interacts more with younger children	Interacts well with younger children Prefers to play with children 3-5 years younger

3.0	C. A lack of spontaneous seekin interests or achievements with	<u> </u>
3.1	Does not show or bring objects to parents or teachers	
3.2	Does not point out objects of interest	

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4.0	•	ocial or emotional reciprocity procity with therapist
	-	
	Social inte	eractions are consistent with Autism
		did not initiate any contact
		she is not seeking social interactions
		she certainly does not seek out attention
		no spontaneous social interaction
	.	he does not spontaneously seek to share interests or
	Does not	achievements with other people
	seek/initiate	did not show any evidence of initiating an interaction
4.1	social	initiates only limited social exchanges
7.1	interactions	initiates little in the way of contact with friends
		initiates very little in the way of play behavior
		does not initiate any social behavior with family or
		individuals
		still not able to initiate a social interaction
		not spontaneously engaging other children
		no voluntary interaction with therapist
		did not initiate any interaction, verbal or nonverbal
4.2	Does not seek	rarely seeks comfort
7.2	comfort	
		entertains himself
		he has always enjoyed playing by himself
4.3	Tends to	"living in his own world"
4.3	entertain self	lack of "connecting"
		talking to self
		played with toys by mother's side
	Plays with or	plays with people as objects
4.4	uses people as if	uses people as objects
	they are objects	
	,	very little interaction with people around him
		his interactions with others tends to be quite limited
		limited interaction with other individuals
	Very limited	lost any interest in playing interactive games
4.5	social	very little in the way of social responsiveness or rapport
4.5		restricted ability to initiate contact
	interactions	not socially connected to parents
		consistent lack of social reciprocity
		withdrawn, passive behavior
		peculiar, avoidant, disengaged
		does not interact with other children
		does not interact with peers
		she is not interactive
		refusal to interact with other children
4.6	No social	zero interaction with people
7.0	interaction	doesn't socially interact
		uninterested in interacting with family or other children
		not interacting socially with others
		he has no social interaction with other children
		does not engage in meaningful reciprocal social interactions

		Social withdrawal
		not engaging socially
		cannot be engaged
		not really connected socially
		no social responsiveness
		refused efforts to interact
		no attempt to interact with examiner
		not attending to social approaches from adults
		he will resist being held, hugged or shown physical affection
		totally unresponsive to efforts to engage him interpersonally
		did not actively engage with this examiner
		difficulty with social interaction
		disregards all attempts to interact with him
		could not be engaged in social interaction
		socially disconnected
	Communicación	relatively poor social interaction
	General social	will not interact in a socially meaningful manner
4.7	ineptitude,	general disregard in social interaction
	Lack of social	minimal interaction with examiner
	interaction	clear-cut abnormalities in area of social interaction
		pays little attention to family or examiner
		decreased social interactions
		limited interaction with other individuals
		his interactions with others tends to be quite limited
		social interaction limited, particularly in group setting
		severe delay in socializations
		little social interaction with others
		social disconnectedness
		social interaction very limited
		social interaction clearly disturbed
		marked impairment of interpersonal relations
		problems with reciprocal social interactions
		difficulty establishing close relationships
		lacks social skills (poor, impaired, limited)
		resists being held, hugged or shown physical affection
		atypical child with whom to interact
		"looking through you", content to be in her own little world
		"mostly ignored me"
		ignoring questions
	Oblivious to	is in his own little world
4.8	others	behaves as if deaf
	oiners	unresponsive to requests
		starring blankly into space
		siaring orankry into space
		interacted with examiner in pleasant, but disengaged, manner
	Interacts, but is	sense of disconnectedness was frequently present.
4.9	withdrawn	interacted with examiner in quiet, withdrawn manner
	wunarawn	somewhat withdrawn
		Somewhat withdrawn

II. Communication Criteria:

5.0 A. Delay in, or total lack of, the development of spoken language Communication disorder

5.1	Delayed language development	language delay delayed language abilities profound language delay has had profound language delay language milestones quite delayed language has always been delayed language skills limited marked impairment in language has some language difficulties as well as flipping words in sentences and difficulty with pronunciation delayed or lack of receptive language receptive & expressive language difficulties	
5.2	Delayed speech development	Speech delay overall speech is delayed limited speech	
5.3	Delayed language and speech development	delayed speech and language development significantly delayed speech and language development severe speech / language retardation	
5.4	No functional speech or language whatsoever	non-communicating child he does not talk no verbal communication no conversational speech no intelligible speech language non-existent no functional language no meaningful language lack of expressive language never developed normal speech or language communicates by grunting, screaming, crying use of jargon	
5.5	*has no words	no words she has no words	
5.6	*has only a few words	has about five words language consists only of "Barney" and "no" rarely says any words uses only single words	
5.7	*restricted speech; no sentences	unable to speak in sentences he has very little in the way of sentences string 2 to 3 words together at a time spoke in broken sentences ("me do") very little verbal response limited vocabulary	
	*need to correlate these criteria with age of subject		

6.0	B. In individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others Functional language is diminished Limited communication ability	
6.1	Impairment of pragmatic language (language of social interaction)	Difficulty conveying wants & needs with language Unable to ask for things using words Difficulty answering questions atypical pragmatic language skills social use of language was below expectations moderate impairment in pragmatic language fails to use language as a form of social interaction difficulty with concrete speech and language tends to communicate by grunting & screaming his understanding of pragmatic language appears to be quite limited answers virtually no questions in a meaningful manner significant lack in communication skills does not appropriately respond verbally
6.2	Difficulty sustaining conversation	unable to sustain conversation difficulty sustaining conversation
6.3	Cannot/will not initiate conversation	does not initiate conversation cannot initiate conversation lack of communicator initiative & responsiveness
6.4	Difficulty engaging in conversation	difficult to engage in spontaneous conversation appears not to pick up on conversational cues well difficulty with conversational skills
6.5	No functional language	no functional language no pragmatic language content of speech seems lacking much of the time no spontaneous speech

7.0	· -	ed and repetitive use of language or atic language
7.1	Exhibits echolalia	Echolalia speech echolalic echolalia tendencies heard great deal of echolalia delayed echolalia
7.2	Some echolalia	occasionally echolalic some echolalia some evidence of echolalia some echolalic tendencies were heard echolalic tendencies in his toddler years language continues to be quite stereotypical and quite echolalic expressive language, often echolalicalike
7.3	Repetitious, perseverative speech	expressive language, often echolalic-like seems to parrot or mimic what is said repeating words repeated certain words over and over much of his speech is repetitive repetitive, stereotypic utterances repetitious, recitation-like quality repetitive stereotypical phrases such as "you bet" repeating sounds in perseverative way often perseverated with a word for days at a time often repeats phrases from videos repeats / imitates almost all words said to him some self-stimulating verbal activity – stereotype
7.4	Improper use of pronouns	behavior of naming letters & some numbers with articulation speaking in third person difficulty understanding appropriate use of pronouns and speaking
7.5	Stereotypical speech	does not use pronouns stereotypical utterances stereotypic vocalization
7.6	Mimic/sing-song speech	mimics sounds sing-songy sounds making voices
7.7	High-pitched vocalizations	high-pitched and repetitive vocalizations high pitched quality of speech speech often shrill / high pitched when excited prosodic contour odd, generally high in pitch
7.8	Unusual/ idiosyncratic vocalizations	idiosyncratic language abnormalities talks / answers himself in a different voice unusual noises making hee-haw sounds strange, unusual "oowing" noise unusual sounds such as squealing or guttural sounds auditory self-stimulation – singing, vocalizations repeating non-sense sounds inappropriate giggling

8.0	•	varied, spontaneous make-believe play or social play appropriate to developmental level
8.1	Does not play with toys	stopped using toys does not play with toys does not play with manipulative toys no meaningful interaction with toys not engaging in any specific play activity inspected toys but did not play with toys
8.2	Does not play creatively or interactively	no imaginative play play with toys was without imaginative control no evidence of creative play no indication of creative or representational play little evidence of pretend / creative play he is not involved in interactive play she did not engage in my obvious pretend play very significant lack of interest in make-believe play lacks spontaneous make believe play no symbolic play
8.3	Does not play with toys appropriately	does not play with toys appropriately toys not used in any purposeful manner interacted with toys only by naming them
8.4	Engages in minimal imaginary play	imaginary play minimal does not engage in much imaginative play
8.5	No imitative play	No imitative play nothing to suggest imitation
8.6	Play is limited	limited play play is limited and quite stereotypic play is extremely limited
8.7	Play is stereotypical or repetitive; little interest in toys	play was simple and repetitive continues stereotypical play perseverative play play was simple and repetitive, indeed perseverative trouble playing with toys shows little interest in toys narrowed involvement with play activities play with toys is not very functional plays randomly with toys
8.8	Tends to play by lining up objects	lining up toys repetitively lining up toys lining up cars lines up objects likes to line objects up only plays by lining things up

8.9	Play is limited to a few toys	has few toys only a few toys with which he will play play is limited to a few preferred items
8.10	Plays with toys in a fashion that is not intended	does not play with toys in the fashion intended plays abnormally with toys will repeatedly toss blocks to floor and watch them scatter

	III. <u>Behavi</u>	or, Interests, and Activities Criteria
9.0	stereotyp	assing preoccupation with one or more ed and restricted patterns of interest that is el in either intensity or focus
9.1	Preoccupation with water	fascination with water preoccupation with water repetitively playing with water profound fascination for water, balloon
9.2	Fascination with spinning objects	fascination with spinning fans enjoys watching spinning fans fascinated by spinning objects likes to watch objects spin turning / twirling objects
9.3	Preoccupation with a specific activity or type of object (general)	Preoccupation with fire preoccupied with medical instruments fascinated by the sound when computer is turned on; when air is squeezed out of bottle peculiar preoccupation with horizontal and vertical planes preoccupation with bouncing ball likes to watch the mixer very preoccupied with cartoons fixated on horses fascinated by mechanical objects trains obsessed with elevators, writing, and drawing obsesses on bendable objects fascinated by anything with letters grasshoppers obsessively focused on books, videos, and pictures preoccupation with cutting up paper into small pieces preoccupied with wires and cords preoccupation with trash, bathrooms, memorizing birthdays fascination with engines and keys tipping a cup of water into the sink over and over repeatedly putting puzzles together compulsion for jigsaw puzzles enamored of television country music station, will watch for 2-3 hours (note: issue is NOT time, it's the "enamored/perseverative" issue) fixation on certain objects and colors lining up objects repetitive activities such as counting objects obsessed with tire swings, color yellow (stacking only yellow blocks, using only yellow crayons) preoccupied with living things preoccupation of patterns of doing things

9.4	Excessive play or interest in a particular activity	playing excessively with certain objects excessive focus on cars and trains spends much time filtering corn through his hands she will stare at books or wrap string around fingers for hours playing with cage / netting over and over fans the pages of a book 20 minutes at a time staring into mirror, lights has watched particular video 100-200 times likes to do puzzles over and over again play on trampoline for hours picking at wallpaper until whole room is free of wallpaper he arranges his cars over and over again in lines playing for long periods with trains, arranging and rearranging in different patterns his favorite activity is to walk around waving coat hangers in front of himself fills and empties bank with coins repeatedly likes to tie things together likes playing with boxes, will line them up in a stereotypical manner and will walk around and look at them
9.5	Extremely focused and intense play	his play is described as intense he can become fixated on an activity to the point that it is impossible to redirect him very focused and intense on single activities / objects to the point of tuning everyone out
9.6	Preoccupation with television	preoccupation with television he can be totally absorbed in watching television perseverative at watching videos and other activities
9.7	Memorization of particular text or numbers	memorizing telephone numbers memorizes lines and dialogue from movies and stories memorization of lengthy book passages
9.8	Perseverates on certain topics	perseverates on various topics perseverates on a single topic

10.0		tly inflexible adherence to specific, non- al routines or rituals
10.1	Displays ritualized behaviors	ritualized behaviors needing to get out of car in certain way, touching walls in rooms need to touch walls in certain places at certain times of the day smells everything stacking books, touching rituals number of rituals preoccupied with touching things walks in straight and specific patterns obsessive rituals before going to bed, opening cupboards requires that his brother say exact same words each night during the bedtime ritual fast forward and rewinds videos to which he is deeply attached and sleeps with licking carpet during exam
10.2	Repetitive/ Perseverative activity involving a single type of object	Lining up toys lining up, grouping toys if this activity is disrupted (lining up objects), he exhibits anger lining up pictures of presidents tends to twirl ropes or strings throughout the house repetitively setting up, knocking down objects repeatedly turning light switch on and off repeatedly turning water and light switches on and off engaging in some repetitive behaviors perseverative behaviors repetitive hand washing engaging in some repetitive behavior repetitious behavior repetitively labeling objects likes to have something in hand which he tends to fondle and tear up

resistant to change usually resists undertaking any activity likes repetition and routine shows a need for routine inflexibility with regard to routines difficulty with changes in routine rigidity of routines likes to have matters on things the same makes effort at maintaining routine insists on sameness insistence on sameness desire for sameness, some intolerance for change very demanding of sameness he seems very fixated on doing things in his own order he cannot tolerate changes in his routine quite marked resistance to change becomes upset if parents fail to follow specific car route distress if parents drive different way to grandmother's

Insistence on 10.3 routine and repetition

house

routines very important; if altered he becomes agitated changes can be very upsetting to her prefers a consistent routine; cries if changes are made easily upset when routines are broken easily upset by change in routines upset if meals don't occur at exactly the same time angry in response to change in routine becomes very upset with change to his routine if the routines of her life are broken, she becomes quite angry

refusing to eat food if not cut in a certain way needs lots of structure and consistency fearful to try new activities

11.0	C. Stereotyp	oed and repetitive motor mannerisms
11.1	Stereotypical	-
11.1	hand flapping	Hand flapping
11.2	Hand flapping especially when excited	hand flapping when excited hand flapping when agitated arm waving when excited
11.3	Stereotypical and repetitive hand and finger movements	Hand movements hand waving hand shaking unusual hand movements repeatedly turning over hands shaking of hands, shuddering clapping hands on thighs in a very rapid fashion finger wiggling hand / finger wiggling hand clapping repetitive clapping number of instances of idiosyncratic movements with his hands idiosyncratic movements, walking fingers across table stereotypic finger movements repetitive finger movements repetitive finger movements repetitive flexion / extension movements of his fingers loves to tap finger on table tapping finger and thumb together rapid finger movements finger flicking finger flicking in front of face waving things in front of his face some finger waving by eye finger-play behavior ringing of hands
11.4	Enjoys spinning self	Spinning spins around in circles likes to spin in circles enjoys spinning he likes to spin and twirl loves to spin in circles loves to spin twirling and spinning practices spinning, twirling his body self-stimulatory behaviors including spinning
11.5	Walks or runs in	pacing in circles
11.3	circles	runs in circles
11.6	Repetitive head banging or striking head	head banging pounds head head banging on floor repeatedly hitting himself on head slapping himself

11.7	Repetitive rocking	Rocking sits on bed and rocks
11.8	Toe walking	Toe walking
		runs on tip toes
		Stereotypical motor behavior
		atypical stereotypic motor mannerisms
		some stereotypic movements observed
		some self-stimulatory behavior
		some stereotypic hand movements were observed
		occasions in which he will demonstrate repetitive movements
		repetitive mannerisms described
		has manifested stereotypic – like movements
		picks at nose stereotypically with thumb and index finger
		picking at her nose for hours at a time
		moving his jaw, rubbing his hands together
		hitting jaw with hand to click teeth
		picks at his skin
		blowing on hand
		hand licking
	Various	lip smacking
11.9	stereotypical	arm flapping
	motor behaviors	head shaking
		twisting his nipples, repetitively striking his finger against
		table
		body posturing
		unusual posturing; jumping while holding crotch
		raising one of his arms
		moving foot in stereotypic manner
		plugging ear with thumb
		hair flicking
		hopping slapping hands under chin
		motor jerks (stereotypical or repetitive – not a tic)
	\bigcirc	hair pulling
		hand sucking
		general self stimulation
		manic – pacing
		- 0

12.0	D. Persister	nt preoccupation with parts of objects
12.1	Pays unwarranted attention to wheels; preoccupied with spinning wheels	stereotypic play with wheels spinning wheels of toys spinning wheels repetitively enjoys spinning wheels of cars watching wheels of trucks likes to watch wheels spin preoccupation with spinning wheels focused attention on wheels of car
12.2	Focuses on parts of objects, rather than the whole	carefully scrutinizes parts of toys fascinated by parts of objects tends to relate to objects as their parts as opposed to their whole preoccupation with parts of objects
12.3	Fascination with particular parts of objects	opens and closes toy car doors and looks inside over and over fascinated with dolls that have eyes that open and close he has a fascination with objects interest with mechanical devices
12.4	Enjoys disassembling things	will manipulate things, take things apart picking at objects until disassembled

13.0	E. Other B	ehavior Categories
13.1	Self Abusive Behavior	bites fingers until red and swollen arm biting picking or pulling hair out self-injurious behavior
13.2	Abnormal Sensory Responses	bothered by loud volume on radio does not like to be touched tactile defensiveness (finger paints, playdough, shaving cream, etc.) does not respond to pain appropriately
13.3	Specific Fears/Phobias	fear of strangers fearful of bright lights
13.4	PICA – eating inappropriate things	