

Tantramar Seniors' College

Fall 2011

Medicine, Mistakes, and the Reptilian Brain

By Dr. John Mary Meagher

Welcome.

I ask you to read these two accounts of physician-patient encounters. How do they differ and or resemble one another? They should provide common ground from which to discuss the characteristics and source of errors. In the second presentation, I suggest a path toward self- awareness to reduce errors.

Discussion is welcomed.

Looking forwards to our discussions.

Ahimsa

John Mary Meagher M.D.

Maximum: 20

Location: Computer Rm, Forest Glen School

Storm Policy: No classes when schools are closed in Moncton.

Some people are very sensitive to perfumes and other scents. Please respect a scent free environment by not using scented products. Thank you.

A note to seniors about class attendance and absenteeism....

As you know, our instructors are all volunteers, who work very hard at putting courses together. Your cooperation is appreciated in letting them know if you are unable to attend any of the classes as most instructors plan weekly classes that are appropriate to the number of registered students in the course.

If circumstances change between registration and the first class, or if you decide to withdraw after the first or second class, please email tsccordinator@nbnet.nb.ca or call 364-2780. Many courses have a wait list and this could allow someone else to take your place. Sometimes, seniors have travel plans or medical appointments made in advance. It would help instructors to know this at registration, if possible, so that class material may be adjusted accordingly. Illness, as well as other unanticipated and unavoidable conflicts can occur. If you are able, please let your instructor know as soon as possible if you will miss a class.

Thank you!

HANDOUT #1

First Account

She is in a wheelchair, headed for room 15. Middle-aged, Caucasian, obese, and crying. Damp face cloth on her forehead. Husband is in tow, holding her handbag, looking detached. Chief complaint: "abdominal and leg pain by four days." Triage category 3. "Not sick" goes through my mind. We aren't very busy yet that morning, with quite a few residents and students just reporting for duty. Twenty minutes later, after five other new patients are picked up in front of her (the vaginal bleeding and cramps patient being preferentially rack-picked was the defining moment), my time threshold was exceeded and off I went to see her myself.

I walk into the room. The patient is in her pyjamas, in her bathrobe with her slippers on. Why the hell can't the nurses ever get patients undressed?" goes through my mind. Mrs X is wriggling and rolling from side to side on the bed, eyes closed, damp wash-cloth on her forehead, moaning frequently. "Not peritonitis" rolls through my head. "Not sick, at least not physically" slides up to the forebrain. "I'm DR. C, I understand that you have not been well for a few days," as I reach for the nurse's notes with the vital signs. Patient moans, and the husband steps to the plate. "Yeah, she'd been vomiting everything up for two days. It all started in her leg. Now her belly's been hurting just like the last time." Nurses notes: "fever, right leg pain, nausea and vomiting by two days." Vital signs: temperature 97°, pulse 100, respiratory rate 24, blood pressure 131/87, oxygen saturation 100% in room air. Meds: Effexor, Pepcid "Vital signs are normal, she's not too sick" crosses my mind.

I discount the leg pain, and head for the money (based on the husband's... "just like the last time"). "What's been wrong with her belly in the past?"

Her husband explains, while she continues to moan and roll from side to side. There is an umbilical hernia requiring repair in the upcoming months by a "plastic surgeon." She has had her appendix and gallbladder removed, and last winter had a tumor in her pelvis that they took out, along with all her female organs." "It wasn't cancer, though. The wound got infected and she had had several operations. We fired her first two surgeons, and now she uses Dr. XXX at University Hospital. He's going to fix her hernia."

"Ah, bowel obstruction," I think. "How are you feeling right now?" Moans and crying with more rolling. I hold her shoulder. "Ma'am, I can't help you unless you talk to me. You look as though you're very uncomfortable. Tell me what symptoms you are having so I can help you to feel better." She starts to hyperventilate and moans faster. "What an excellent first patient for the day," I think. "Ma'am, are you having pain right now?" Then it comes, after about 30 seconds of silence and rapid breathing.... rolled on her side, in a semifetal position... a whiney whisper that raises the hair on my neck more effectively than fingernails on a chalkboard. "Yesssssss. Ohhhhhhhh. Ohhhhhhhhhh." "Ma'am, WHERE does it hurt?" (I know the answer even as I ask...). "Ohhhhhhhhhh. All over. Everywhere." The patient begins retching, and flicks her hands into the air, wrists wrangling. I give her an emesis basin. She spends about 2 minutes retching, but produces nothing. I wonder if this isn't simply for my benefit, or perhaps the husband's. Is she being abused? "Ma'am, I need to examine you to see what's wrong." As she continues to

roll from side to side, I try to palpate her abdomen through her bathrobe and pajamas. I give the gurney a good rattle and shake her pelvis... no evident increase in pain ("no peritonitis" again rolls through my thoughts). Her belly doesn't feel distended and there is no involuntary guarding.

"I'm going to give you some medicine for the nausea and pain. I'm also going to give you some fluids through your vein and draw some blood studies. I need to look up your old records and see what they did earlier this year. I'll need you to get undressed and into a gown so that I can examine you." I order promethazine and diphenhydramine, deciding to wait on the opioid until after I sort out if it's nausea or pain that is causing such a fracas.

I look her up in our computerised database. Neither the name nor the medical record number comes up with any hits. I return to the room and verify that she was cared for here in the past. The husband thinks that her records are at University Hospital (these would be part of our database). I wonder why she's not in the database.

Thirty minutes later it was discovered that her medical record number was entered incorrectly during registration and is corrected. The computer now provides more than 20 pages of records for me. I browse through these in between staffing two cases. "Fired" Drs. A and B, two of the nicest and most competent general surgeons on our medical staff, last February after her wound became infected. Admitted in May and July for presumed small bowel obstruction and underwent enterolysis. I go back to see her, 50 minutes after my initial encounter. Fetal position, moans are diminished. In a gown, still, with pajama bottoms and underwear on. I get more history... the nausea is now much better although the pain hasn't improved. It is periumbilical, colicky, radiates centrally to the umbilicus. Bowel movements by four times since yesterday without blood or diarrhoea, last six hours ago. No oral intake since noon yesterday due to nausea and emesis. Pain started in her right leg at the ankle and thigh and "migrated" into her abdomen. No peritoneal signs, no masses. She still resists efforts to examine her while she lies on her back. She says that this is "identical" to her episodes in May and July. I decide she must have an early bowel obstruction. Her leg is normal colour and size, no effusion. Palpation doesn't seem to elicit pain. I decide to measure it. No tape measures in the room. I go to the next three adjacent rooms... no tape measures. I go to the nurses' station... they can't find one, but will hunt one down and put it in the room for me.

I remembered as I haven't ordered any labs since I wanted to first check her medical records and then got interrupted by a medical student as I was about to return to her room to place my orders. Now almost an hour into it, I order an acute abdominal series, complete blood count, basic metabolic profile, lipase, liver function tests, and urine. I wonder why the nurses didn't ask me if I wanted any labs when they started her intravenous. "Oh well, if I get her symptoms under control I may be able to put her in the observation unit and send her home later," I think.

I order morphine for her pain, and re-dose the promethazine shortly afterward when she complains to the nurse of worsening nausea. One hour later she vomits, so I order dolasetron (the nurses are now telling me that "she's high maintenance"). I know I won't be sending her home and note that the radiographs should be back along with her labs. No obstruction, mild elevation, and atelectasis right lung field (unchanged from the May

and July chest radiographs that I look at), positive ketones in her urinary analysis, white cell count 11.000, hemoglobin and hematocrit fine, bicarbonate 15 with anion gap of 15. Lipase and liver function tests are normal except small elevation of alkaline phosphatase. I enter the room to deliver news (three hours, 30 minutes after she arrived) and two more doses of morphine and one litre of normal saline later. She's back to rocking slowly back and forth, tearful, and has the whine going. "I'm soooooooooo siiiiiiiiiiiick! Ohhhhhhhhhh." There are now an additional mother, aunt and sister along with the husband. No one looks too happy. I re-examine her abdomen... no change. I explain that I'll call her doctor and admit her to the hospital for a presumptive early small bowel obstruction.

Dr X. X. X. is scrubbed in the operating room at University Hospital. I relay information to a doctor I do not know, second hand through a nurse whom I don't know. Dr X. X. X. points out that he's a plastic surgeon and this isn't in his expertise area. I ask him whom I should contact instead, because she fired general surgeons here. He doesn't know with "this new system" and all. Ball back in my court.....

I return to the room and explain that we'll have to go doctor shopping, after some discussion, they agree to go with the on-call surgeon. (I hope that it isn't Dr. A or B!). . The mother stops me as I go to leave the room. "Aren't you going to do something about her leg?" I quickly re-examine it....soft, good colour and temperature, doesn't feel firm. I remembered that I haven't measured it, and also that there still is no tape measure in her room. It appears identical to the other leg. Palpation now seems to be subjectively uncomfortable anywhere that I touch it. I explain that I am uncertain what is causing her leg pain, but that I'm focusing on her abdominal pain. Mom says, "Her father died from a blood clot in his leg." I order a venous duplex ultrasound. I look at her flow sheet...no repeat vital signs. I ask the nurses to repeat her vital signs. This is done four hours and 30 minutes after her initial set. Still afebrile pulse 79, BP 139/82, respiratory rate 22. The following thoughts go through my mind: "At least it appears that it's nothing big I'm missing....she has pain out of proportion to her examination, and says it's identical to two prior episodes. I can't have been missing dead gut. Let's get this ultrasound (mainly for Mom's benefit), get a surgeon, and get her and her family out of here before the nurses hang me."

One hour later, she returns from ultrasound. She's rolling again, and the moans seem to be at a new fingernail-stretching tone (I think, "for the benefit of her family"). She says her abdominal pain is even worse. Her examination (in between rolls) is unchanged. I decide to unequivocally rule out dead gut and order a venous lactate, an abdominal computer tomography (CT) with contrast, and more morphine. I admit her to one of the partners of the fired surgeons. He sends his physician's assistant to see her. History and physical and orders are written by the physician's assistant. I begin to relax she's now somebody else's problem patient.

Ultrasound calls: Deep venous thrombosis throughout the entire femoral system. I check for anticoagulant risks, explain to the family that we know the reason for the leg pain, and order enoxaparin. They all seem to have an "I told you so" look about them (or is that simply my imagination?). I wonder how the day would have gone if I had rack-picked the

vaginal bleeder instead of this lady as my first patient. "Could a medical student have screwed this up as badly as I did?"

A hospitalist is requested after I call the surgeon and point out the new issue of the deep vein thrombosis. He quickly sees the patient. This delays the patient's oral contrast administration, which ultimately necessitates a nasogastric tube placement. He mentions to me that she's "difficult." As he walks over to write his note, he says, "Pretty wild that she drove all the way from Florida seven days ago with only two stops..." ("Gee, that would have been a nice piece of history to elicit," I think. "What an embarrassment.")

My shift is over. I turn her over to my partner as pending abdominal CT and venous lactate.... "if there's dead gut, her surgeons need to be called." Otherwise, orders are written, including pain medication and anti-emetics.

I wake up at two o'clock in the morning in a sweat. 'Dead gut. I missed dead gut.' Or maybe worse, necrotizing fasciitis." And I gave her enoxaparin...the surgeon will love that when he goes to the operating room." I toss and turn for another two hours before going back to sleep. I decide that sharing of this would be of interest for some and cathartic for me.

Discharge diagnosis: Ileus, inflammatory bowel, right lower extremity deep vein thrombosis, multiple pulmonary emboli bilaterally, ventral hernia.

This ends Dr. Chisholm's account.

HANDOUT #2

The Second Account

...set in a small Welsh mining town, is from "The Citadel" by A. J. Cronin. The junior doctor, Andrew Manson, was summoned by his senior partner Doctor Bramwell to rubber stamp a committal of a lunatic to a mental asylum:

"On the following Friday, at six o'clock in the morning, Dr. Andrew Manson was awakened by a knocking on his bedroom door. It was Annie, and very red about the eyes, offering him a note.

Andrew tore open the envelope. It was a message from Doctor Bramwell:-

"Come round at once. I want you to help certify a dangerous lunatic."

Annie struggled with her tears.

"It's Emrys, Doctor. A dreadful thing has happened. I do hope you'll come down quick, like."

Andrew threw on his things in three minutes. Accompanying him down the road, Annie told him as best she could about Emrys. He had been ill and unlike himself for three weeks, but during the night he had turned violent, and gone clean out of his mind. He had set upon his wife with a bread-knife. Olwen (Emrys's wife) had just managed to escape by running into the street in her nightgown. The sensational story was sufficiently distressing as Annie brokenly related it, hurrying beside him in the grey light of morning, and there seemed little he could add, by way of consolation, to alter it. They reached the Hughes's house. In the front room Andrew found Doctor Bramwell, unshaven, without his collar and tie, wearing a serious air, seated at the table, pen in hand. Before him was a bluish paper form, half filled in.

"Ah, Manson! Good of you to come so quickly. A bad business this. But it won't keep you long."

"What's up?"

"Hughes has gone mad. I think I mentioned to you a week ago I was afraid of it. Well! I was right. Acute mania." Bramwell rolled the words over his tongue with tragic grandeur. "Acute homicidal mania. We'll have to get him into Pontynnewdd straight away. That means two signatures on the certificate, mine and yours - the relatives wanted me to call you in. You know the procedure, don't you?"

"Yes." Andrew nodded. "What's your evidence?"

Bramwell began, clearing his throat, to read what he had written upon the form. It was a full, flowing account of certain of Hughes's actions during the previous week, all of them conclusive of mental derangement. At the end of it Bramwell raised his head. "Clear evidence, I think!"

"It sounds pretty bad," Andrew answered slowly. "Well! I'll take a look at him."

"Thanks, Manson. You'll find me here when you're finished," And he began to add further particulars to the form.

Emrys Hughes was in bed, and seated beside him - in case restraint should be necessary - were two of his mates from the mine.

Standing by the foot of the bed was Olwen, her pale face, ordinarily so pert and lively, now ravaged by weeping. Her attitude was so overwrought, the atmosphere of the room so dim and tense, that Andrew had a momentary thrill of coldness, almost of fear.

He went over to Emrys, and at first he hardly recognized him. The change was not gross; it was Emrys true enough, but a blurred and altered Emrys, his features coarsened in some subtle way. His face seemed swollen, the nostrils thickened, the skin waxy, except a faint reddish patch that spread across the nose. His whole appearance was heavy, apathetic. Andrew spoke to him. He muttered a reply. Then, clenching his hands, he came out with a tirade of aggressive nonsense, which, added to Bramwell's account, made the case for his removal only too conclusive.

A silence followed. Andrew felt that he ought to be convinced. Yet, inexplicably, he was not satisfied. Why, why, he kept asking why should Hughes talk like this? Supposing the man had gone out of his mind, what was the cause of it all? He had always been a happy, contented man - no worries, easygoing, amicable. Why, without apparent reason, had he changed to this?

There must be a reason, Manson thought doggedly; symptoms just don't happen of themselves. Staring at the swollen features before puzzling for some solution of the conundrum, he instinctively reached out and touched the swollen face, noting subconsciously, as he did so, that the pressure of his finger left no dent on his cheek. All at once, electrically, a terminal vibrated in his brain. Why didn't the swelling pit on pressure? Because - now it was his heart that jumped! - because it was not true oedema, but myxoedema. He had it! No, no, he must not rush. Firmly, he caught hold of himself. He must not be a plunger, wildly leaping to conclusions. He must go cautiously, slowly, be sure!

Curbing himself, he lifted Emrys' hand. Yes, the skin was dry and rough, the fingers slightly thickened at the ends. Temperature - it was subnormal. Methodically he finished the examination, fighting back each successive wave of elation. Every sign and every symptom - they fitted as superbly as a complex jigsaw puzzle. The clumsy speech, dry skin, spatulate fingers, the swollen inelastic face, the defective memory, slow mentation, the attacks of irritability culminating in an outburst of homicidal violence. Oh! The triumph of the completed picture was sublime.

Rising, he went down to the parlour, where Doctor Bramwell, standing on the hearthrug with his back to the fire, greeted him: -

"Well? Satisfied? The pen's on the table."

"Look here, Bramwell -" Andrew kept his eyes averted, battling to keep impetuous triumph from his voice. "I don't think we ought to certify Hughes."

"Eh, what?" Gradually the blankness left Bramwell's face. He exclaimed in hurt astonishment: "But the man's out of his mind!"

"That's not my view," Andrew answered in a level tone, still stopping down his excitement, his elation. It was not enough that he had diagnosed the case. He must handle Bramwell gently, try not to antagonize him. "In my opinion Hughes is only sick in mind because he's sick in body. I feel that he's suffering from thyroid deficiency - an absolutely straight case of myxoedema."

Bramwell stared at Andrew glassily. Now, indeed, he was dumbfounded. He made several efforts to speak - a queer sound, like snow falling off a roof.

"After all," Andrew went on persuasively, his eyes on the hearth-rug, "Pontynewdd is such a sink of a place. Once Hughes gets in there he'll never get out. And if he does he'll carry the stigma of it all his life. Suppose we try pushing thyroid into him first?"

"Why, Doctor," Bramwell quavered, "I don't see -"

"Think of the credit for you," Andrew cut in quickly. "If you should get him well again. Don't you think it's worth it? Come on now, I'll call in Mrs. Hughes. She's crying her eyes out because she thinks Emrys is going away. You can explain we're going to try a new treatment."

Before Bramwell could protest Andrew went out of the room. A few minutes later, he came back with Mrs. Hughes. Planted on the hearthrug he informed Olwen in his best manner "that there might still be a ray of hope" while, behind his back, Andrew made a neat tight ball of the certificate and threw it in the fire. Then he went out to telephone to Cardiff for thyroid.

There was a period of quivering anxiety, several days of agonized suspense, before Hughes began to respond to the treatment. But once it started, that response was magical. Emrys was out of bed in a fortnight, and back at his work at the end of two months. He came round one evening to the surgery at Bryngower, lean and active, accompanied by the smiling Olwen, to tell Andrew he had never felt better in his life.

HANDOUT #3

Winter 2011 Series

For Participants for Lecture: “ Why and How to Create your Irritability Barometer”

Presented by

Dr. John Mary Meagher

Striving toward The NewMind Response™

We are what we repeatedly do. Excellence, then, is not an act, but a habit. Aristotle

To reduce attachment to the reptilian brain and enhance attachment to the new brain is difficult to master because we are attempting with a new brain (designed only a few million years ago) to overcome an old brain, entrenched for 200 million years. This old brain has pre-eminence and is hardwired to assumptions and snap reactions.¹

As mentioned before, irritability is a barometer of how attached we are to our reptilian brain from moment to moment.

You are invited to create your own Irritability Barometer before the lecture. Instructions are below.

There are four steps.

- Make a list of frequent irritants
- Categorize one’s different levels of responses to irritants
- Match one’s usual responses to the frequent irritants listed in step one
- Practice monitoring levels of responses to common irritants

Step 1: Make a list of frequent irritants

Make a list of the frequent irritants at home, commuting, and at work. The more irritants we identify, the more often we can employ our irritability barometer.

A list might look like this:

At Home:

Loud music at home or next door
Children bickering
Toys in the driveway
Clothes lying on the floor
Complaints about the inconsequential
Failure to relay messages
Failure to do chores

Doing chores
Computer malfunctioning
Telemarketing calls
Barking dogs
Shortage of food supplies
Wasting food
Wasting electricity
Balking at homework or bedtime
Door slamming
Taking long showers
Bills to be paid

Commuting:

Delays by partner or children to leave the house
Car refuses to start
Ice and snow on the windshields
The snow plough has just blocked the end of the driveway
Detours to work
Red traffic lights
Lane-hoppers
Slow drivers
Difficulty finding parking
Fuel low in tank

At Work:

Being put on hold on the telephone
Delay in getting results, instruments
Delay in starting surgery or office
Colleague “cherry-picking” the charts
Boisterous behavior at work
Annoying, lazy staff
Complaints about the inconsequential
Interruptions
Discourteous, importuning or truculent patients
Dressed patients
Illegible handwriting
Reflex hammer, tape measure, etc. not at hand

Step 2: Categorize one’s different levels of responses to irritants.

We can categorize our responses to common irritants into four categories, from neutral to severe. A classification might look like this:

Neutral response: Respond with humor or view the irritant from three months into the future, like Viktor Frankl described. (See Chapter 9)

Mild irritability: Begin to blame, criticize or dislike/ anyone or anything, or to sigh, roll the eyes, and become sarcastic.

Moderate irritability: To look at the time, to quicken one’s pace, to interrupt, to be preoccupied with formulating a response; to change one’s voice pitch or tone, to tighten one’s jaw or paw; to lean forward in one’s chair, and movements to become jerky.

Severe irritability: One’s voice becomes edgy-growling, one’s breaths quicken, one doesn’t listen, one talk over the other person. Regardless of what is said, one takes the opposite point of view. One squirms, sweats, changes stance, has the urge to stand up and show the patient the door.

Step 3: Match one’s usual responses to the frequent irritants listed in step one.

Strive to establish an accurate base line of one’s **usual** responses to each of the irritants. As with most instruments, the more one calibrates one’s irritability barometer, the more accurate it becomes. See Table 2 for examples.

[Table 2](#) Reader’s Usual Responses to Irritants

List of Irritants At Home Check your usual Responses

	Humor	Mild	Moderate	Severe
Loud music at home or next door				
Children bickering				
Clothes lying on the floor				
Failure to relay messages				
Failure to do chores				
Doing chores oneself				
Computer malfunctioning				
Telemarketing calls				
Shortage of food supplies				
Door slamming				
Wasting electricity				
Balking at homework / bedtime				
Taking long showers				
Not turning lights off				
Outstanding bills				
Toys in the driveway				
Complaints about the inconsequential.				

Irritants Commuting**Check your usual Responses**

	Humor	Mild	Moderate	Severe
Delays leaving the house				
Ice on the windshield				
Bus or metro delays				
Red traffic lights				
Lane-hoppers				
Difficulty finding parking				

Irritants at Work**Check your Responses**

	Humor	Mild	Moderate	Severe
Delay in getting results				
Colleague cherry-picking the charts				
Boisterous behavior at work				
Annoying, lazy staff				
Interruptions to help colleague or to socialize				
Discourteous, demanding or truculent patients				
Delay in turn-over-time				
Complaints about the inconsequential				
Wait for proper instruments				
Pen stolen or misplaced				
Being put on hold on the telephone				

Step 4: Practice monitoring levels of responses to common irritants.

Place the list of irritants with their corresponding standard levels of response: in a desk at home, in the glove compartment of the car, and in your notebook at work. Practice acknowledging each irritant as it occurs and noting the level of response it elicits. Practice noting one's irritants with their levels of responses. If the response to a standard irritant is **more than usual**, then reptilian influence is stronger, mischief is afoot. This step is crucial to glimpse the chameleon-like heightened reptilian response within. There are four other questions one may ask oneself as outlined in following algorithm for Heightened Reptilian Attachment.

The cause for this heightened response could then be traced through following algorithm for Heightened Reptilian Attachment.

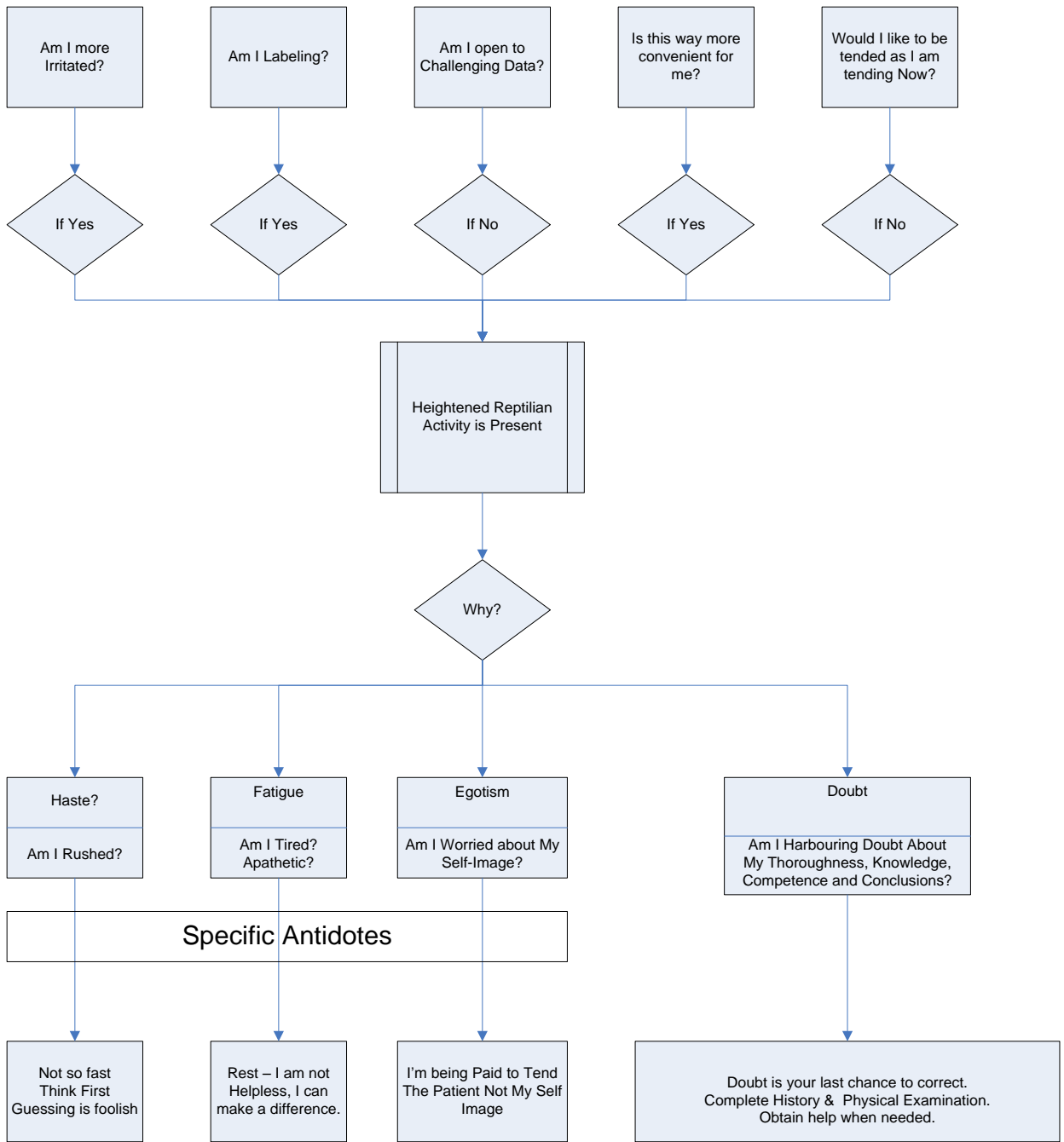
**Algorithm for Heightened Reptilian Attachment
(Striving towards the NewMind Response™)**

The algorithm (Figure 17) has three steps for monitoring, identifying and neutralising heightened reptilian attachment.

Step 1. To identify heightened reptilian attachment, we ask ourselves five questions.

Step 2. If heightened reptilian attachment is present, we can identify its cause(s) by asking ourselves four questions.

Step 3. We employ appropriate antidote(s) (see specific antidotes, Table 3) together with or without generic antidotes to counter heightened reptilian attachment.



Specific antidotes are listed in the right column below.

Haste	“Not so fast. Think first.”
Egoism	It’s not who is right, but what’s right. The patient’s well-being is more important than my self-esteem.
Tired, apathetic, “What’s the use?”	“I am not helpless, I can make a difference.”
Labeling	Will impede more than help diagnosing the patient.
Convenience	Effort is the clarity we seek. The correct action is often the inconvenient. Stellar action is always inconvenient.

Generic antidotes are listed here.

1. I have the freedom to do thorough work. (Frankl)
2. Effort is often required for clarity. (Bergson)
3. Transpose oneself three months into the future. How small then becomes our present reptilian attachments from that distance? Or our reptilian attachments of three months ago are of little importance now. (Frankl)
4. Transpose the inconvenience of the moment to another physician’s inconvenience. It would ruffle our feathers less. (Epictetus recommended this transposition of problems).
5. Sun Tsu observed, “anger, with time, can revert to joy.” Similarly, irritability can revert to patience. Why not be patient now, when it matters?

¹ The new-brain has developed rapidly while the reptilian brain has stalled by comparison. Julian Huxley observed: “cultural evolution proceeds at a rate hundreds of times that of biological evolution.”

Consider the following timetable:

- 3,000,000 years ago: hominids bid goodbye to the apes
- 2,000,000 years ago: first tools created
- 150,000 years ago: first rock carvings and paintings
- 60,000 years ago: first flowers found in graves
- 45,000-35,000 years ago: modern man appeared; language evolved
- 40,000 years ago: first use of fire
- 13,000 years ago: grain was ground
- 10,000 years ago: last Ice Age ended
- 9,500 years ago: first complicated settlement
- 7,000 years ago: early switch from hunting and gathering to agriculture
- 5,500 years ago: the Old Kingdom of Egypt.

(from “Emotional Common Sense” by Rolland S. Parker, Harper & Row, Publishers, Inc., New York, 1973)
For 50,000 human generations our basic neural circuitry was hard-wired for hunting and escape, whose reactions are fright, fight or flight, which do not accommodate to consideration, discernment and re-vision.