



CDC Advises Us Not to Panic About CJD



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A decade ago (in March and June 1989), the *Dodge Magazine* published a two-part series of articles on the then fairly new subject of CJD (Creutzfeldt-Jakob Disease). The gist of the two articles was that CJD was one of the *most difficult to transmit* of the transmissible diseases known to man, and that it should not cause panic in our profession. Other important specific issues were covered, of course; some of them somewhat frightening and some of them somewhat reassuring.

Since that time, and especially recently, a number of articles have been published and materials disseminated on this same subject within our field. We've been concerned that some of these take on a tone which might contribute to a general fear within our profession of handling the CJD case. Incidentally, we are not saying that CJD doesn't deserve our utmost "respect"; we all know that if you contract it, it is fatal. We also all know, however, that we deal every day with diseases which are

fatal if we contract them. People considered refusing to embalm HIV cases in the early eighties. We all now know that we as professionals are equipped to handle HIV cases.

We felt the very best way to allay any unwarranted concern on the part of an embalmer would be to go to the Centers for Disease Control in Atlanta for their position on CJD. Over the course of the last few months, Jack Adams has talked several times with Dr. Ermias Belay who is an M.D., and with his assis-

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tant, Abtin Shahriari, MPH (an epidemiologist). Here are some direct quotes from Jack's conversations with these two men at the CDC:

There is no reason not to embalm [a CJD case].
...no reason not to aspirate.
Do what you always do.
...no need to panic.
Transmissibility is...one in a million.

Interestingly, although Jack called the CDC on quite a few different occasions and asked for opinions on CJD without specifying any doctor's name, he was consistently directed to these two men. On the other hand, one of our customers informed us recently that they were directed to a different expert at the CDC when inquiring about the same subject. In response to our customer's request for the CDC's official position on CJD and embalming, the expert faxed to the funeral director a handout Kim Collison had written on the subject and passed out at last winter's Dodge Seminars! We have no idea how this material found its way to the CDC, but we are naturally flattered.

Incidentally, for those of you who have this handout, Kim now

feels (in light of what Belay and Shahriari have since said, among other things) that there are three suggestions she had made which are overly conservative and not necessary. In her guidelines, Kim brings up the possibility of using bleach on skin surfaces, collecting drainage rather than flushing it, and refraining from aspirating. One of the men Jack spoke with said of these measures, "You could do that if you wanted to be extra conservative."

There are two panic-inducing things about CJD. We know it's lethal (although we also know that we deal with lethal diseases every day). Since we use universal precautions, we (and OSHA and professionals in other fields such as health care) consider ourselves safe to an acceptable and reasonable degree when handling lethal disease cases. Now let's talk about the other panic-inducing characteristic of CJD: it is not disinfected by formaldehyde, glutaraldehyde, or any of the other disinfectants we commonly use in the prep room. Incidentally, we have seen some material that states that glutaraldehyde is partially effective. This is incorrect; glutaraldehyde is no more effective whatsoever against CJD than formaldehyde is. (See References Nos. 1 and 2.) We've also seen suggestions that formaldehyde should be *avoided* when embalming CJD cases. This is utterly untrue, also.

Let's consider very carefully what it means to us as embalmers that aldehydes do not disinfect CJD. It doesn't seem to dawn on us, but it should be obvious that the risk of an embalmer catching any lethal blood-borne disease is not significantly affected by that disease's susceptibility or insusceptibility to aldehydes. When we as embalmers are operating on a body with a fatal blood-borne disease...when we are handling our scalpels and hypos...when

jagged bones are exposed on autopsy cases...all this takes place before and during injection of the aldehydes. In other words, we are in contact with

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the body *before* the aldehydes have had the time to perfuse and disinfect the tissues!

All right, you say, I'll grant that the embalmer must use the same universal precautions and great care with sharps regardless of whether or not the organism succumbs to aldehydes. But, you may be thinking, what about the mourners? They are not at risk around a body *after* embalming when formaldehyde has been able to render the tissues disinfected, but wouldn't they be at risk around a CJD body after embalming? Our response to that would be: first of all, you could explain the situation to the family and suggest that they not

When we are embalming a body with a fatal disease, our primary contact takes place before we've disinfected the tissues. Therefore, our chances of contracting that disease are not significantly affected by that disease's susceptibility or insusceptibility to disinfectants.

touch the body. Even this, however, is probably overly-conservative – because you pretty much need a puncture wound and exposure to bodily fluids to transmit CJD. The mourners aren't exposed to jagged

bones, scalpels, or hypos. And, we all expect that a professional embalming means the viewers will not be exposed to bodily fluids.

Still in doubt? Look at it this way. You probably know how difficult it is to diagnose CJD. It exhibits symptoms similar to many other kinds of dementia. The only way we have to really identify it is through cranial autopsy. It is reasonable to assume that many CJD cases are not diagnosed – and you've probably embalmed an undiagnosed one unless you're new to the field. In that case, you probably *will* embalm an undiagnosed one. Wouldn't it be better to use universal precautions scrupulously and always take great care with sharps, rather than refusing a family the important therapeutic values of viewing, and in the process cause funeral service to look less than competent and professional?

We hope we've supported the foregoing conclusions and opinions well with facts and logic, but we must stress that none of this is a guarantee you will not contract CJD. We can't guarantee you won't contract HIV during embalming, and we can't guarantee you won't be struck down by a bus while crossing the road. The decision whether to embalm *known* CJD cases is yours and yours alone.

Let's say you've now made the decision that you will embalm *known* CJD cases. (You're probably going to be embalming *unknown* CJD cases, anyway.) We believe you might want some guidance on a few specific issues. First of all, most reputable sources mention bleach and sodium hydroxide as the best disinfectants to use on CJD. This is correct. They are both about equally effective. Some studies have endorsed them both without reservation. Others have cast doubt in some people's mind because they feel they are "only" very effective – but perhaps

not 100%. The best experts in the public health fields use these two chemicals with confidence, and we feel you should, also. We also feel you should use bleach rather than sodium hydroxide. Experts who work with Kim Collison tell us bleach is a little safer to handle, and we all know bleach is more convenient to obtain.

While you will probably want to use straight bleach to clean the table, floors, and those instruments which are not disposable, we would naturally recommend that you use disposable scalpels, disposable hypos, and disposable everything-else-possible. When disinfecting instruments in bleach, soak them for one hour, and then flush them thoroughly with water. Bleach is tough on instruments.

You may have heard of scalpels with round rather than pointed ends which are designed to be less likely to create a puncture wound. This is a good idea. The drawback, we have found, is that these blades must be attached to a special *non-disposable* handle. Dodge can get these round-ended scalpel blades and special non-disposable handles if you want them. However, two out of three cut-resistant gloves, which we'll discuss in a moment, have areas on them that are puncture-resistant. Puncture-resistant gloves, great care,

and disposable scalpels seem like a better trade-off to us than the non-disposable, round-ended scalpels. That's up to you.

You may have also heard of hypos designed to prevent puncture wounds. We've looked into this. The only sizes available are extremely small, and impractical for em-

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balming use, unfortunately.

Finally, let's talk about cut-resistant gloves. Jack and the other embalmers on the Dodge staff all feel more comfortable embalming a known CJD case with cut-resistant gloves. Up until now, Dodge has been offering the MedArmor glove. We've been handling it as a drop-ship item, which has necessitated a price of about \$35.00 per pair. We are now going to bring them into stock, and that allows us to reduce the price to \$27.50 per pair. This still isn't inexpensive, but the gloves can be reused, assuming that you use a #55 standard autopsy glove as an outer layer. Jack also uses a disposable glove underneath the MedArmor glove. Incidentally, *no* cut-resistant glove can be disinfected with bleach; they all deteriorate rapidly in the presence of bleach.

We are also going to be stocking two new kinds of cut-resistant gloves. In Figure 1, we'll show you a chart that outlines the various advantages and disadvantages. Figures 2, 3, and 4 will show you the gloves themselves.

As you'll see in the chart, the pros for the MedArmor are its puncture-resistant fingertips and the fact that it is fairly easy to over-glove. (There's always a certain amount of pulling and tugging involved in putting one glove on over another.) The con is its price. The pro for the Tuff Coat glove is its large area of puncture-resistance; the con is the difficulty of over-gloving. (Since there is more rubbery surface on this glove, there's more friction and resistance as you try to pull another latex glove over it.) The strengths of the disposable glove are its price and the ease of over-gloving. The downside is it gives you no puncture resistance.

One other point about over-gloving; Jack (who has a medium-sized hand) uses a large MedArmor glove, and covers that with a size 9 standard autopsy glove. When he uses a large Tuff Coat glove, he must move up to a size 10 to over-glove.

Two final suggestions: first, use waterless embalming. No water in the injection solution means a minimum amount of drainage for you to be exposed to. More important even than that is the fact that you will get better preservation and therefore you will minimize the possibility of leakage of fluids from the body. Above all, of course, we do not want

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Fig. 2



Fig. 3



Fig. 4



Comparison of Three Types of Cut-Resistant Gloves

	Cost per pair	Puncture Resistance	Use as disposable?	Ease of over-gloving
MedArmor (2) Cut-resistant gloves	\$ 27.50	Finger tips	No	Fair
Tuff Coat (3) Cut-resistant gloves	\$ 9.95	Most of hand	Probably not	Somewhat difficult
Disposable (4) Cut-resistant gloves	\$ 3.00	No	Yes	Easy

Figure 1

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leakage of fluids from the body on a CJD case.

The second final suggestion is that you place a plastic sheet on the embalming table, and cover that with an absorbent sheet, before placing the body on the table. When you're through, gently wrap these two sheets up and place them in a biohazard bag to be incinerated. The idea here, of course, is to minimize contamination of the embalming table and the floor.

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When HIV first came on the scene, we were all very concerned, and some of us refused to embalm HIV cases. With a little nudge from the law, none of us are refusing these cases now. We understand why people would be concerned about CJD. None of us live risk-free lives, and

embalmers are exposed to some risks that many other people are not. Nevertheless, we call ourselves professionals. Like health care workers and individuals crossing the street, most of us accept certain well-calculated risks, and then proceed with great caution.

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Along with Don Sawyer, Jack is one of Dodge's busiest embalming educators and lecturers. He has embalmed over 18,000 human remains. Jack also represents Dodge in northern Illinois.

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ing the details. But I certainly believe that, as far as this lady is concerned, funeral service showed that it is a caring and honorable profession. And what does it cost for an urn? Very little, when we compare the cost to what the vessel can provide in healing. And who of us hasn't given an urn to a family we have been close to or to a neighbor or friend who lost a pet which had been cremated, or perhaps to some down-and-out soul who really couldn't afford one for a family member? Any successful funeral director will tell you that money is not the primary goal. Yes, it pays the bills, but helping others in need provides rewards money can't buy.

To heal the bereaved, the urn does not always need to contain human mortal remains. Just a photo, rings or a pocket knife, and letters written to the deceased will work just as well sometimes...when there is no alternative.

Several years ago I offered a family a white, adult-size Dodge Dorchester

urn to be used as a combination baby casket/vault for a stillborn. They accepted. It had been slightly "damaged." At the Dodge offices in Cambridge, one of the people I work with is Fran Murphy, a fellow funeral director/embalmer. Fran and I are often in the fortunate position of being offered merchandise such as this to "dispose" of. Dry Wash removed most of the marks on the urn, and it became a very nice gift for

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a young grieving family. Like many of your firms, the firm I work at evenings and weekends never charges for an infant. The only costs to the family are for cash advances and merchandise. But this time there was no

casket/vault charge. And the cemetery only charged for an urn interment, not an infant interment (which would have cost more).

An urn is not just a container for cremated remains. We should not limit our thinking about it, or we may lose out on the opportunity to bring profound healing. If the body is not present during the services, I believe the urn should be. We need a focal point...the human remains of our loved one. Without it, the service becomes just another gathering. Closure is limited. These are not just my feelings; these are the feelings of many individuals who have discussed this subject with me after having taken the route of not having the body or urn present. People who have done this invariably say they won't do it again.

Dennis is an active funeral director and embalmer in the Boston area, in addition to working at Dodge full-time. He and Fran Murphy are the two men you're most likely to speak with when you call Dodge for advice on a difficult case.