

B-28 PROTOCOL FOR CATS WITH PICA OR INAPPROPRIATE INGESTION CONDITIONS, INCLUDING WOOL SUCKING

1. Ensure that the cat is receiving an adequate, complete feline diet (most cats are). Rule out any medical disorders, including intestinal parasitemia, dental disease, small intestine or large bowel disease, and so on.
2. If the cat favors plants or soil, consider changing the texture of the cat's diet by adding some roughage (bran, vegetables, or crunchy food) or growing a garden of chives, catnip, or plain grass for the cat. Often, feeding the cat more frequently (the same amount but divided) and in a more interesting setting (dry food around large rocks so that the cat must work to find the food) may help. These benign approaches may enrich the cat's environment, and if they do not help, no harm is done.
3. Prohibit the cat from access to the objects it is inappropriately ingesting. This may mean keeping a spotless house or putting the cat in a large crate with food, litter, and toys during times when direct supervision is not an option. When the cat is not in the crate, it should be continuously monitored. Put a bell on its collar or attach a harness and leash to the cat and monitor its behavior. If the cat begins to show any intention or appetitive behavior toward an object it would suck or ingest, correct the cat by startling it in a manner sufficient to abort the behavior. After the cat has calmed itself, engage it in another activity that the cat enjoys and that is directly competitive with the ingestion behavior. (See steps 4 to 6 below.)
4. Set expectations for the cat. Set feeding times, play times, and attention times. Make sure the cat gets 10 to 15 minutes of concerted attention (grooming, stroking, and talking to) at least twice a day on a regular schedule. Identify any sources of stress (washing machines, noisy children, another cat that is not a favorite of the patient) and minimize contact with them. This may mean giving this cat its own room (or sole access to a favored room) or providing it with company. These are very individual circumstances.
5. Enrich the environment with kitty condos and toys if the cat will use them.
6. Teach the cat to sit and request, by pawing, a food scrap that is within the dietary regimen chosen. The cat will do this first by accident and needs to be rewarded *instantly*. Keep practicing on a regular schedule. This helps the cat learn to relax in exchange for a reward.
7. Pharmacological intervention can be an important part of therapy and may facilitate the above. Before *any* drugs are used, a complete chemistry screening profile and blood cell count should be performed by the veterinarian. There are two reasons for this: (1) the cat may have an underlying condition that would preclude the use of drugs that are metabolized through renal and hepatic pathways and (2) if medication is prescribed, the animal's response must be monitored if therapy is long term. To assess the significance of any changes, it is important to know the baseline values.

Drugs that have been successful in such cases

1. Diazepam (Valium) 1 to 2 mg (or 0.2 to 0.4 mg/kg) orally every 12 to 24 hours
2. Amitriptyline (Elavil) 5 mg (or 0.5 to 1.0 mg/kg) orally every 12 to 24 hours
3. Clomipramine (Anafranil) 2.5 mg (or 0.5 mg/kg) orally every 24 hours

4. Buspirone (BuSpar) 5 to 10 mg (or 0.5 to 1.0 mg/kg) orally every 24 hours or half that every 12 hours

Drug side effects

1. **Diazepam.** Diazepam is a humanly abusable drug and is *not* the appropriate drug for every household. This drug should be carefully monitored and may necessitate frequent reexaminations attendant with refills of the prescription because of the abuse potential. Benzodiazepines are metabolized through renal and hepatic pathways. Any animal with a preexisting renal or hepatic condition must be monitored carefully. The primary side effects are ataxia and stupor. Decreasing the dose often alleviates these effects. Any vomiting, inappetence, or profound change in normal behavior should act as a warning to the practitioner that the dose should be changed or the drug discontinued. There have been isolated reports of sudden death in cats that received relatively small amounts of both brand-name and generic diazepam. Sufficient epidemiological data do not exist to postulate an underlying cause for this, but many individuals have shied away from use of diazepam in cats. There have been relatively few recent cases of sudden death despite two decades of diazepam treatment of cats. More information should be forthcoming in the next few years. If the cat just started to exhibit the condition *and* the client and practitioner can identify an event associated with the start of this activity, diazepam may be a perfectly acceptable first-choice drug. The intermediate metabolite is the active compound (the half-life of diazepam is on the order of seconds); a gross assay of when the cat achieves effective levels of the intermediate metabolite can be gleaned from its behavior. As the cat metabolizes the drug and the metabolite reaches steady-state levels, the cat usually staggers or acts a little ataxic for a few days. This behavior should spontaneously resolve; if it does not, the cat may be receiving too large a dose of drug. If the cat never exhibits the transient perception changes, the dose may not be high enough.
2. **Amitriptyline.** Amitriptyline is a TCA that acts by inhibiting serotonin reuptake. As a result, more serotonin—one of the neurotransmitters associated with upbeat moods and decreased anxiety—is available. TCAs are metabolized through renal and hepatic pathways. One of the major pathways used is the glucuronic acid route. Cats have less efficient glucuronidation than dogs; hence the half-lives of many drugs are longer in cats. Amitriptyline is no exception. Cats that are able to take this drug and experience none of the common side effects (vomiting, sedation, anorexia, and tachycardia) benefit from its use. About 50% of cats (this is a clinical estimate) experience GI upset when treated with amitriptyline. This upset is usually profound enough to preclude the use of the drug. All side effects appear reversible. Amitriptyline may be the first drug of choice for barbering cats, particularly because the behavioral effects are usually evident within 7 to 10 days.
3. **Clomipramine.** Clomipramine is a more potent TCA than amitriptyline. It has almost no effects on norepinephrine pathways compared with amitriptyline and thus may have fewer global side effects than amitriptyline. Cats may be more sensitive to its arrhythmogenic cardiac effects than are dogs or people. Clomipramine acts by inhibiting serotonin reuptake. More serotonin—one of the neurotransmitters associated with upbeat moods and decreased anxiety—is available. TCAs are metabolized

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4. **Buspirone.** Buspirone is a newer, nonspecific anxiolytic drug that increases brain levels of both dopamine and serotonin. The side effects include the same renal and hepatic ones as for the other drugs, but overall, most animals do not appear to experience side effects in dosage ranges that are considered therapeutic. This is an advantage for cats. Buspirone may be the drug of first or second choice for barbering cats. It is expensive, whereas amitriptyline is not. If amitriptyline is ineffective or the

patient experiences side effects when treated with amitriptyline, buspirone is an excellent replacement drug. Buspirone may not reach therapeutic levels for 3 to 4 weeks in some animals with a minimum of 1 week in most. This is the only reason it is not the drug of first choice.

5. There may be some newer, experimental agents that are not readily available. These either alter cholecystokinin (CCK) metabolism or CCK binding. CCK is the hormone that is largely responsible for the feeling of GI fullness. Experimental data published in the Proceedings of the National Academy of Science in 1991 may suggest that feline appetitive movements are associated with abnormal CCK metabolism. This is one active area of research interest, but practical administration of the drugs is not yet an option.

Sample Pharmacological Decision Algorithm for PICA, Inappropriate Ingestion, Wool Sucking

